b) Several fixed cameras employed. Close-ups of both "senders" and "receivers" would be video-taped simultaneously.[161]

c) Use of split-screen techniques for viewing and coding "sender" and "receiver" simultaneously.

d) Use of uniform lens opening.

e) Use of constant camera angles.

f) Guidelines for video-tape playback and "fast-forward" techniques.

g) Use of computer to facilitate compilation of specific behaviors. Already available is the following:

> The computer can be instructed to find the first frame in which a particular action occurs, to search for all similar events, and to record them, in succession, on a separate video tape.[162]

"Process units" of behavior should be defined:

> The principle is the same whether we are classifying verbal or nonverbal communication. We should separate one behavior from another only when we can clearly assoicate a separate meaning with each behavior. For example, observers who classify verbal behavior often use the sentence or even the work as their recording unit. Their observational focus tends to be too narrow.[163]

Solving the quandry as to how to retain validity and reliability yet achieve the broad observational focus remains our dilemma.

FUTURE RESEARCH

Many of the former recommendations rest on research yet to be completed. Obviously, studies of teacher nonverbal behavior have been insufficient to answer all demanded of them. Now the pooling of available information and the further refinement of techniques for the observation and analysis of teacher nonverbal behavior constitute significant challenges to the field.

Among the challenges still to be met are:

The testing of whether non-classroom experiments are applicable to classroom situations. (For example, is psychiatric research applicable to the second-grade classroom?)

The discovery of how and why values get assigned to behaviors.

The study of complex cause-effect behavioral patterns and sequences.

The study as to perception and its influence on nonverbal communication.

The study of the correlation of self-esteem with perception.

The study of self-actualization and its causes and effects vis-a-vis nonverbal behavior.

The study of the influence of artifactual, cosmetic, dress, and body appearance on classroom behavior.

The study of architectural and decorative features on classroom nonverbal communication.

The study of class and school population as related to behavioral "modes."

The study of physiological influences on nonverbal behavior including metabolic, neural, digestive, etc. abnormalities. (Of particular mention here are the influences of diet and medication.)

The study of length of teacher experience as it affects or does not affect nonverbal behavior. (e.g., numbers of cues used, types of cues used, idiosyncracy of style, etc.)

The study of the range of teacher nonverbal communication appropriate to different age levels, or accomplishment levels

(i. e., "gifted" as opposed to the "learning handicapped.")

The determination of teacher nonverbal behavior appropriate to instructional "modes," (i. e., question-and-answer sessions, small group discussions, board work, quizzes, creative play, participation, "quiet" seat work, etc.)

The determination of whether particular behavioral "units" are more appropriate to one subject than another. (e. g., Are the behaviors effective in physical education workable in the math class?)

The determination of duration of retention and importance of students' perceptions of teacher nonverbal behavior.

The study of classroom nonverbal behaviors supportive of "cooperativeness."

The study of awareness-raising and nonverbal training and its correlation with learning, cooperativeness, etc.

The investigation as to how an instrument measuring nonverbal behavior may be used at graduate and post-graduate levels as preparation in such professions as business, banking, law, law enforcement, general medicine, dentistry, surgery, etc.

SOME FINAL NOTES

Central to the crisis-of-paradigm state that nonverbal communications occupies is the problem of theoretical conception at its core. Although the co-existence of such competing paradigms as Birdwhistell's notational system and Scheflen's anecdotal work stimulates discussion within the field, it nevertheless tends to disperse the theoretical view presented to those "outside" the field. If communications people are to view themselves as resource people, as "consultants" to other fields, they must provide an accurate understandable approach.

The conflict and vagueness of paradigms is evidenced by the instruments studied herein. Those such as Galloway, Victoria, Love-Roderick and Cheffers have grasped the impact of teacher-student nonverbal interactions, but have by no means turned out instruments that are both useable and accurate. Thus, from the inaccuracy and inadequacy of our own discipline rise the shortcomings of these very studies.

Even the views presented by this writer are undercut by philosophic concerns. Suppose teachers "know" all the "proper" nonverbal moves? What then? Suppose an instrument of adequate reliability and validity should be developed? Would it "answer all?" Can the multitude of variables influencing classroom interaction ever be "covered?" If the

perception of the "receiver" is taken into account, are we then dealing with an unmeasurable "'n' of one?" If an instrument were to provide for the intentionality of the "sender," what would be the results for nonverbal research?

These are more than passing problems. Although almost global expectations are entertained in this thesis, the final emphasis must be placed on general and "workable" trends. Along with the raising of teacher and student awareness should come the mutual "learning" of empathy, the development of metacommunicative skills, the understanding of needs, and the openness to human interaction. Before teachers "wrestle" with verbal or nonverbal instruments, they first need to be Rogerian, Bernian, and Jourardian.

Nevertheless, the authors reviewed in this thesis have, like modern "Johnny Appleseeds," scattered seed on fertile ground. It is both in further experimentation and in refinement of communication skills that trees will grow and flower. Perhaps then, all the communicators who have together provided sufficient awareness of nonverbal dynamics will give the teacher a "modern-day apple."

FOOTNOTES

[1] Richard Allen Schusler, "Nonverbal Communication in the Elementary Classroom," (Theory Into Practice, Vol. 10; Oct., 1971), p. 283.

[2] Charles M. Galloway, "Teaching is Communicating: Nonverbal Language in the Classroom," (Wash: Assn. for Stud. Tchg., Bull. #29, 1970), p. 9.

[3] Thomas S. Kuhn, The Structure of Scientific Revolutions, (Chicago: Univ. of Chicago Press, 1970), pp. 84-86.

[4] A. E. Scheflen, "The Significance of Posture in Communication Systems," (Psychiatry, Vol. 27; 1964), p. 317.

[5] Tulsi B. Saral, "Cross-Cultural Generality of Communication via Facial Expressions," (Comparative Group Studies, Voc. 3, no. 4; Nov., 1972), p. 486.

[6] Paul Ekman, "The Universal Smile: Face Muscles Talk Every Language," (Psychology Today, Vol. 9; Sept., 1975), p. 35.
See Also Jerry D. Boucher and Paul Ekman, "Facial Areas and Emotional Information," (Journal of Communication, Vol. 25, no. 2; Spring, 1975), p. 21.

[7] Dale G. Leathers, Nonverbal Communication Systems, (Boston: Allyn & Bacon, Inc., 1976), p. 9.
See also Joseph James Victoria, "Development of a Typology of Nonverbal Behavior and Observational Procedures for the Identification of Nonverbal Behavior of Student-Teachers of Art," (Penn State Univ: unpublished doctoral dissertation, 1970), p. 20.

[8] Albert Mehrabian and John T. Friar, "Encoding of Attitude By a Seated Communicator via Posture and Position Cues," (Journal of Consulting and Clinical Psychology, Vol. 33; 1969), p. 336.

[9] James Victoria, "A Language for Affective Education," (Theory Into Practice, Vol. 10; Oct., 1971), p. 300.

[10] Ibid, p. 301.

FOOTNOTES (continued)

[11] Charles M. Galloway, "Nonverbal: The Language of Sensitivity," (Theory Into Practice, Voc. 10; Oct., 1971), p. 229.

[12] Mark L. Knapp, "The Role of Nonverbal Communication in the Classroom," (Theory Into Practice, Vol. 10; Oct., 1971), p. 247.

[13] Schusler, "Nonverbal Communication...," p. 285.

[14] Victoria, "Development of a Typology...," p. 5.

[15] Barbara M. Grant and Dorothy Grant Hennings, The Teacher Moves: An Analysis of Non-Verbal Activity, (New York: Teachers College Press, 1971), p. 4.

[16] Robert Koch, "Nonverbal Observables," (Theory Into Practice, Vol. 10; Oct., 1971), quoting Halpin, . p. 289.

[17] Knapp, "The Role...," p. 247.

[18] Willard C. Schum, "The Effects of Training Student Teachers in Self-Analysis of Non Verbal Response Patterns," (Chicago: American Educational Research Assn., 1974), pp. 1-12.

[19] David B. Strother, H. J. Ayres, and Donald C. Orlich, "The Effects of Instruction in Nonverbal Communication on Elementary School Teacher Competency and Student Achievement. Final Report," (Washington: Dept. of HEW, Oct., 1971), pp. 1-55.

[20] Victoria, "Development of a Typology...," p. 130.

[21] Ibid, p. 130.

[22] Grant and Hennings, p. 6.

[23] Russell L. French, "Analyzing and Improving Nonverbal Communication," (Theory Into Practice, Vol. 10; Oct., 1971), pp. 305-307.

[24] Nancy Kehoe, "Nonverbal Communication: Male and Female Perceptions," (Counseling and Values, Vol. 19, No. 3; April, 1975), pp. 184-185.

FOOTNOTES (continued)

[25] Robert Rosenthal et al., "Body Talk and Tone of Voice: The Language Without Words," (Psychology Today, Vol. 8; Sept., 1974), p. 64.

[26] Ibid, p. 64.
See also Kehoe, pp. 184-185.

[27] Ibid, p. 67.

[28] Barry F. Morganstern, "Rationale and Training Guides for a Nonverbal Classification System," (University of Missouri: unpuplished paper, undated), p. 5.

[29] Leathers, p. 9.

[30] Ibid, p. 4.

[31] Ibid, p. 4.

[32] Ibid, p. 5.

[33] Ibid, p. 5.

[34] Ibid, p. 6.

[35] Victoria, "A Language...," p. 300.

[36] Leathers, p. 7.

[37] Victoria, "Development of a Typology...," p. 5.

[38] Albert Mehrabian, "Orientation Behaviors and Nonverbal Attitude Communication," (Journal of Communication, Vol. 17; Winter, 1967), p. 331.

[39] Charles M. Galloway, "Teacher Nonverbal Communication," (Educational Leadership, Vol. 24; Oct., 1966), pp. 61, 72.
See also Charles Millard Galloway, "An Exploratory Sutdy of Observational Procedures for Determining Teacher Non-verbal Communication," (University of Fla: unpublished doctoral dissertation, 1962), p. 40.

[40] Galloway, "An Exploratory Study...," p. 40.

FOOTNOTES (continued)

[41] L. Thomas Keith, Louis G. Tornatsky, and L. Eudora Pettigrew, "An Analysis of Verbal and Nonverbal Classroom Teaching Behaviors," (The Journal of Experimental Education, Vol. 42, no. 4; Summer, 1974), pp. 30-37.

[42] Robert L. Woolfolk and Anita E. Woolfolk, "Effects of Teacher Verbal and Nonverbal Behaviors on Student Perceptions and Attitudes," (American Educational Research Journal, Vol. 11, no. 3; Summer, 1974), p. 302.

[43] Albert Mehrabian, Silent Messages, (Belmont, Calif: Wadsworth Pub. Co., 1971), pp. 53-55.

[44] Albert Mehrabian and Susan R. Ferris, "Inference of Attitudes from Nonverbal Communication in Two Channels," (Journal of Consulting Psychology, Vol. 31, no. 3; 1967), p. 252.

[45] Saral, p. 480.

[46] Ibid, p. 473.

[47] Ekman, "The Universal Smile...," pp. 35-36.

[48] Boucher and Ekman, p. 21.

[49] Ibid, p. 21.

[50] J. S. Kleinfeld, "Effects of Nonverbally Communicated Personal Warmth on the Intelligence Test Performance of Indian and Eskimo Adolescents," (Journal of Social Psychology, Vol. 91; 1973), pp. 149-150.

[51] Michael M. Reece and Robert N. Whitman, "Expressive Movement, Warmth and Verbal Reinforcement," (Journal of Abnormal and Social Psychology, Vol. 64; 1962), p. 234.

[52] Saral, p. 486.

[53] Thomas J. Saine, Madlyn A. Levin, and Gaylynn E. Mc Hose, "Assessing the Structure of Nonverbal Interaction," (The Southern Speech Communication Journal, Vol. 40; Spring, 1975), p. 278.

[54] Gale Goldberg and Cathleen Kubiniee Mayerberg, "Emotional Reactions of Students to Nonverbal Teacher Behavior," (The Journal of Experimental Education, Vol. 42, no. 1; Fall, 1973), pp. 29-32.

FOOTNOTES (continued)

[55] Charles A. Duke, "Nonverbal Behavior and the Communication Process," (College Composition and Communication, Vol. 25; Dec., 1974), p. 399.

[56] Gale Goldberg, "Effects of Nonverbal Teacher Behavior on Student Performance," (Temple University: unpublished doctoral dissertation, 1971), pp. 78-82.

[57] See Bernard Kaplan, "An Approach to the Problem of Symbolic Representation: Nonverbal and Verbal," (Journal of Communication, Vol. 11; 1961), pp. 52-54.

[58] Kaplan, p. 60.

[59] Nan Lin, The Study of Human Communication, (Indianapolis and N.Y.: Bobbs-Merrill Co., Inc., 1973), p. 67.

[60] Ewan C. Grant, "Human Facial Expression," (Man, Vol. 4NS; 1969), pp. 525-536.

[61] Mehrabian, "Orientation Behaviors...," p. 324.

[62] Paul Ekman, "Differential Communication of Affect by Head and Body Cues," (Journal of Personality and Social Psychology, Vol. 2, no. 5; 1965), pp. 726-735.

[63] Mehrabian, "Orientation Behaviors...," p. 330.

[64] Mehrabian and Friar, pp. 330-331.
See also Albert Mehrabian, "Relationship of Attitude to Seated Posture, Orientation and Distance," (Journal of Personality and Social Psychology, Vol. 10, no. 1; 1968), pp. 26-30.
See also R. Lewis Hodge, "Interpersonal Classroom Communication Through Eye Contact," (Theory Into Practice, Vol. 10; Oct., 1971), pp. 264-267.
See also N. A. Mobbs, "Eye-Contact in Relation to Social Introversion/Extroversion," (British Journal of Social and Clinical Psychology, Vol. 7; 1968), p. 305.

[65] James M. Seals and Peter A. Kaufman, "Effects of Nonverbal Behavior on Student Attitudes in the College Classroom" (The Humanist Educator, Vol. 14, no. 2; Dec., 1975), p. 53.

[66] Ibid, p. 53.

FOOTNOTES (continued)

[67] George Breed and Victoria Colaiuta, "Looking, Blinking, and Sitting," (Journal of Communication, Vol. 24; Spring, 1974), p. 75.

[68] George Breed, "Nonverbal Behavior and Teaching Effectiveness. Final Report," (South Dakota University: Nov., 1971), pp. 1-59.

[69] Mehrabian and Friar, pp. 330-331.

[70] Mehrabian, "Relationship of Attitude...," pp. 26-30.

[71] Mehrabian, "Orientation Behaviors ...," p. 324.

[72] Ekman, "Differential Communication...," p. 726.

[73] Victoria, "Development of a Typology...," p. 22.

[74] Mehrabian and Friar, pp. 330-331.
See also Mehrabian, "Relationship of Attitude...," p. 26 and Albert Mehrabian, "Significance of Posture and Position in the Communication of Attitude and Status Relationships," (Psychological Bulletin, Vol. 71; 1969), p. 359.

[75] Mehrabian, Silent Messages, pp. 1-23.

[76] Ernst G. Beier, "Nonverbal Communication: How We Send Emotional Messages," (Psychology Today, Vol. 8; Oct., 1974), pp. 52-56.

[77] Eugene Sherman, "Listening Comprehension as a Function of Proxemic Distance and Eye-Contact," (Graduate Research in Education and Related Disciplines, Vol. 7, No. 1; Fall, 1973), p. 6.

[78] Robert E. Kleck, "Interaction Distance and Non Verbal Agreeing Responses," (British Journal of Social and Clinical Psychology, Vol. 9; 1970), p. 180.

[79] R. Sommer, Personal Space, (Englewood Cliffs, N.J.: Prentice-Hall, 1969), pp. 110-119.

[80] Charles M. Galloway, "The Challenge of Nonverbal Research," (Theory Into Practice, Vol. 10; Oct., 1971), p. 310.

FOOTNOTES (continued)

[81] Galloway, "An Exploratory Study...," p. 72.

[82] Ibid, p. 40.

[83] Ibid, p. 40.

[84] Galloway, "The Challenge of...," p. 313.

[85] Charles M. Galloway, "Nonverbal: The Language of Sensitivity," (Theory Into Practice, Vol. 10; Oct., 1971), p. 229.

[86] Galloway, "Teaching is Communicating...," p. 12.

[87] Galloway, "An Exploratory Study...," p. 70.

[88] Ibid, p. 76.

[89] Ibid, p. 70.

[90] Ibid, p. 70.

[91] Ibid, p. 7.

[92] Galloway, "Teaching is Communicating...," p. 13.

[93] Victoria, "A Language for...," p. 300.

[94] Ibid, p. 300.

[95] Victoria, "Development of a Typology...," pp. 4-5.

[96] Victoria, "A Language for...," p. 301.

[97] Victoria, "Development of a Typology...," p. 124.

[98] Ibid, p. 117.

[99] Victoria, "A Language for...," p. 302.

[100] Victoria, "Development of a Typology...," p. 54.

[101] Ibid, p. 127.

[102] French, pp. 306-307.

FOOTNOTES (continued)

[103] Victoria, "Development of a Typology...," p. 128.

[104] Ibid, p. 73.

[105] Ibid, p. 119.

[106] Alice M. Love and Jessie A. Roderick, "Teacher Nonverbal Communication: The Development and Field Testing of an Awareness Unit," (Theory Into Practice, Vol. 10; Oct., 1971), p. 295.

[107] Ibid, p. 295.

[108] Morganstern, pp. 16-17.

[109] Love and Roderick, p. 296.

[110] Ibid, p. 296.

[111] John Theodore Francis Cheffers, "Validation of an Instrument Designed to Expand the Flanders System of Interaction Analysis," (Temple University: unpublished doctoral dissertation, 1973), p. 44.

[112] Ibid, p. 44.

[113] Ibid, p. 19.

[114] Ibid, p. 18.

[115] Ibid, p. 22.

[116] Ibid, p. 21.

[117] Ibid, pp. 22, 32.

[118] Ibid, p. 41.

[119] Ibid, p. 35.

[120] Ibid, p. 46.

[121] Ibid, p. 47.

[122] Ibid, p. 43.

FOOTNOTES (continued)

[123] John Theodore Francis Cheffers, "Validation of an Instrument Designed to Expand the Flanders System of Interaction Analysis," (Temple University: unpublished doctoral dissertation, 1973), pp. 45-46.

[124] Ibid, p. 49.

[125] Ibid, pp. 51-53.

[126] Ibid, p. 42.

[127] Ibid, pp. 89-90.

[128] Jean Marie Civikly, "A Description and Experimental Analysis of Teacher Nonverbal Communication in the College Classroom," (Florida State Univ: unpublished doctoral dissertation, 1973), p. 111.

[129] Ibid, p. 111.

[130] Ibid, p. 112.

[131] Ibid, p. 54.

[132] Ibid, p. 84.

[133] Donald M. Medley and Harold E. Mitzel, "A Technique for Measuring Classroom Behavior," (Journal of Educational Psychology, Vol. 49, no. 2; 1958), p. 87.

[134] Ibid, pp. 86-87.

[135] Ibid, p. 87.

[136] Galloway, "An Exploratory Study...," p. 58.

[137] Medley and Mitzel, p. 87.

[138] Hugh V. Perkins, "A Procedure for Assessing the Classroom Behavior of Students and Teachers," (American Educational Research Journal, Vol. I; Nov., 1964), p. 250.

[139] Ibid, p. 258.

[140] Ibid, pp. 254-255.

FOOTNOTES (continued)

[141] Schusler, pp. 285-286.

[142] Grant and Hennings, p. 9.

[143] Ibid, pp. 15-16.

[144] Larry R. Parker and Russell L. French, "A Description of Student Behavior: Verbal and Nonverbal," (Theory Into Practice, Vol. 10; Oct., 1971), pp. 276-277.

[145] Ibid, p. 277.

[146] Kuhn, pp. 84-85.

[147] Donald P. Johnston, "Supervisory Conferences in Selected Institutions," Interaction Analysis: Selected Papers (Washington: Assoc. of American Educators, 1971), pp. 46-48.

[148] See Galloway, "An Exploratory Study...," p. 5.

[149] Robert W. Blake, "I See What You Mean-But Not By Words: Extraverbal Communication," (ETC: A Review of General Semantics, Vol. 30, no. 3; Sept., 1973), p. 234.

[150] Harry F. Silberman, "A Symposium on Current Research on Classroom Behavior of Teachers and Its Implications for Teacher Education," (Journal of Teacher Education, Vol. 16; Sept., 1963), p. 236.

[151] Mark L. Knapp, Nonverbal Communication in Human Interaction, (New York: Holt, Rinehart & Winston, Inc., 1972), pp. 122-123.

[152] See David B. Strother, H. J. Ayres, and Donald C. Orlich, "The Effects of Instruction in Nonverbal Communication on Elementary School Teacher Competency and Student Achievement: Final Report," (Washington: Dept. of HEW; Oct., 1971), pp. 26-57 and French, "Analyzing and Improving...," p. 307.

[153] See Leathers, p. 247.

[154] See Edward T. Hall, "Proxemics," (Current Anthropology, Vol. 9, no. 2-3; April-June, 1968), pp. 83-108 and Sommer, pp. 110-119.

FOOTNOTES (continued)

[155] Leathers, p. 236.

[156] Knapp, Nonverbal Communication..., p. 185.

[157] See Ibid, pp. 28-29 for a discussion of the effects of geography and climate on human interaction.

[158] Compare Medley and Mitzel, "A Technique...," pp. 86-91.

[159] See Leathers, pp. 211-221 for a discussion on measurement.

[160] See Knapp, Nonverbal Communication..., pp. 126-127.

[161] See Leathers, pp. 201-203 for a discussion of camera techniques recommended for the study of nonverbal communication.

[162] Knapp, Nonverbal Communication..., p. 196.

[163] Leathers, p. 205.

[164] See Knapp, Nonverbal Communication..., pp. 125-126.

ANNOTATED BIBLIOGRAPHY

BOOKS

Amidon, Edmund J. and Flanders, Ned A. The Role of the Teacher in the Classroom. Minneapolis: Assoc. for Productive Thinking, 1967.

In this work, Flanders develops a system of categories for analysis of classroom verbal interaction; used by Galloway, Cheffers, Victoria and Love-Roderick.

Bäuml, Betty J. and Bäuml, Franz H. A Dictionary of Gestures. Metuchen, N.J.: Scarecrow Press, 1975.

A guidebook primarily to nonverbals in classical literature and their meanings in the past, it is of some help to literature teachers making units on nonverbal communication. No scientific orientation.

Bosmajian, Haig A. The Rhetoric of Nonverbal Communication. Glenview, Ill: Scott, Foresman & Co., 1971.

Readings by assorted experts, whether political, law, or communications leaders, treat fascinating aspects of nonverbal communication, interpersonal and intercultural. Good reading for teachers are the general articles by Davis, Krout, and Frank.

Davis, Martha. Understanding Body Movement. New York: Arno Press, 1972.

Excellent annotated bibliography covering body motion from dance to the psychological interview. Some works on nonverbal behavior are included, but most concentrate on infant study, animal study, (especially the rhesus monkey) psychotherapy, dance, and labor relations. What is notable regarding teacher nonverbal communications is its absence from this bibliography.

Davitz, Joel R. The Communication of Emotional Meaning. New York: McGraw-Hill Book Co., 1964.

This compilation of early works, all of which are interrelated, touches on the nonverbal in some sections. Facial expression and vocalic stimuli are studied. Provides some background for those studying nonverbal communication.

ANNOTATED BIBLIOGRAPHY (continued)

Grant, Barbara M. and Hennings, Dorothy Grant. The Teacher Moves: An Analysis of Non-Verbal Activity. New York: Teachers College Press, 1971.

Hennings and Grant describe a two-track observation procedure using both with "live" observers and with video-tape methods. Despite problemmatic use of the non-objective camera and vague categorization techniques, the book does work toward teacher awareness. It is not designed for the scientifically-minded.

Hinde, R. A. Nonverbal Communication. Cambridge: University Press, 1972.

Following a long section on animal communication, Hinde includes articles on human communication-in social settings, in cultural settings, in psychotherapeutic settings, etc. Another "expert" reference that is good for general reading, it is not educationally-oriented.

_____,[no author] Interaction Analysis: Selected Papers, Furst, Sandefur and Bressler, Johnston. Washington: Assoc. of Teacher Educators, 1971.

Three papers in a series are printed herein. Furst overviews the significant techniques of interaction analysis from Flanders on. Sandefur and Bressler concentrate on analysis of Flanders, Amidon and Hunter, Hughes, and the multidimensional systems of Spaulding, Honigman, Medley and Mitzel, Ryans, Openshaw and Cyphert. Johnston reports on conferences at four institutions. Supervisors were observed to determine use of interaction analysis and microteaching. All three papers concentrated on verbal analysis. Sandefur and Bressler make useful summaries of largely verbal categorization techniques.

Knapp, Mark L. Nonverbal Communication in Human Interaction. New York: Holt, Rinehart & Winston, Inc., 1972.

Knapp's compilation and intertwining of all-important sources on nonverbal communication ranges from the influence of environment to the dynamics of paralanguage. Teachers might be interested in the lengthy section on body and

ANNOTATED BIBLIOGRAPHY (continued)

dress as well as in one on environment as communication.

Kuhn, Thomas S. The Structure of Scientific Revolutions. Chicago: University of Chicago Press, 1970.
Used as a definitional basis for this thesis, Kuhn's work is a classic in history of science.

Leathers, Dale G. Nonverbal Communication Systems. Boston: Allyn & Bacon, Inc., 1976.
A synthesis of major works in the nonverbal area, this book uses the systems approach to reveal functions of kinesics, proxemics, artifactual, etc. systems. An examination of problems of observation, classification, measurement and codification is necessary reading to all researchers in the field.

Lin, Nan. The Study of Human Communication. New York: Bobbs-Merrill Co., Inc., 1973.
As its title suggests, this general work places component systems in the larger framework of human communication.

Mehrabian, Albert. Silent Messages. Belmont, Calif: Wadsworth Publishing Co., Inc., 1971.
Mehrabian introduces the novice to his three-dimensional metaphor for nonverbal communications. A fascinating theory, it is skewed by its psychological assumptions.

Ruesch, Jurgen and Kees, Weldon. Nonverbal Communication: Notes on the Visual Perception of Human Relations. Berkeley: University of California Press, 1956.
This basic and renowned text, though filled with simplifications and stereotypical thinking about nonverbal communication, nevertheless bears perusal by those doing research. It is cited in many bibliographies.

Scheflen, Albert E. How Behavior Means. New York: Anchor Press-Doubleday, 1974.
Scheflen's classic in nonverbal behavior studies kinesics in a psychotherapeutic setting. Gestures and body positions are equated to personality dynamics. These anecdotal observations

ANNOTATED BIBLIOGRAPHY (continued)

of idiosyncratic behavior are tantalizing but filled with assumptions of a non-scientific nature.

Scheflen, Albert E. and Scheflen, Alice. Body Language and the Social Order. Englewood Cliffs: Prentice-Hall, Inc., 1972.

These "experts" on nonverbal behavior posit that cues complicate and maintain both positive and negative social orders. The authors include how behaviors interact with institutional and political controls and they examine how behaviors participate in the creation of deviancy. Although there are no exclusively "educational" chapters in the book, teachers may find some provoking "kernels" for thought, here.

Scherer, Klaus R. Nonverbale Kommunikation. Hamburg: Helmut Buske Verlag, 1972.

Scherer presents an overview of American experimenters and supplies many of their codes. Included in the immense bibliography are: Ekman, Friesen, Leventhal, Macoby, Birdwhistell, Scheflen, Sommer, Jourard, Hall, Exline, etc. Not teacher-oriented, it is valuable to those seeking sources in the field. Available only in German.

Sommer, R. Personal Space: The Behavioral Basis of Design. Englewood Cliffs: Prentice-Hall, Inc., 1969.

Sommer finds teachers "fatalistic" regarding their environment and in need of "sensitizing" themselves to it. This study of six classrooms' seating arrangements, windows, and accoutrements is important to those teachers wishing to manipulate environment in order to alter participation.

UNPUBLISHED WORKS

Cheffers, John Theodore Francis. "Validation of an Instrument Designed to Expand the Flanders System of Interaction Analysis." Temple University: unpublished doctoral dissertation, 1973.

ANNOTATED BIBLIOGRAPHY (continued)

A study applying Flanders to the nonverbal behavior of teachers, this succeeds in that it produces an instrument of fairly high reliability and it fails in that it does not provide for the subtleties of nonverbal behavior.

Civikly, Jean Marie. "A Description and Experimental Analysis of Teacher Nonverbal Communication in the College Classroom." Florida State University: unpublished doctoral dissertation, 1973.

Two-stage research is limited by vaguely defined categories of nonverbal behavior. Innovations and implications for future research are provocative.

Galloway, Chas. Millard. "An Exploratory Study of Observational Procedures for Determining Teacher Non-verbal Communication." University of Florida: unpublished doctoral dissertation, 1962.

Galloway applies the Flanders scale to nonverbal communication in the classroom and creates the classic work in the area.

Goldberg, Gale. "Effects of Nonverbal Teacher Behavior on Student Performance." Temple University: unpublished doctoral dissertation, 1971.

Video-tapes of teachers from three camera positions are used as bases for student ratings of teachers on a subjective scale. Differing face, head, and body cues indicate positive, neutral, and negative affect styles. Despite unsupported assumptions, the study offers concerns that need to be addressed.

Middleman, R. R. "The Impact of Nonverbal Communication of Affect on Children from Two Different Racial and Socioeconomic Backgrounds." Temple University: unpublished doctoral dissertation, 1971.

Middleman assigns negative, neutral, and positive interpretations to teacher behavior a' la Galloway. Many questionable assumptions are employed. Middleman does suggest the importance of cross-cultural research for the classroom.

ANNOTATED BIBLIOGRAPHY (continued)

Morganstern, Barry F. "Rationale and Training Guides for a Nonverbal Classification System." University of Missouri: unpublished paper, not dated.

Morganstern's "learner package" introduces the novice to the easy-to-handle Love-Roderick system. With a view to creating workable nonverbal models for teachers, he summarizes the literature somewhat shallowly. He tends to lead one to understand the nonverbal as a simple, easily codifiable system for classroom use.

Victoria, Joseph James. "Development of a Typology of Nonverbal Behavior and Observational Procedures for the Identification of Nonverbal Behavior of Student-Teachers of Art." Penn State University: unpublished doctoral dissertation, 1970.

Victoria studies the "neutral," "supportive," and "unsupportive" nonverbal activities of teachers using video-tapes. Victoria is cautious, scientifically "correct" in the study. Despite its difficult style, it is invaluable to the field of teacher nonverbal communications.

ARTICLES AND ABSTRACTS

Beier, Ernst G. "Nonverbal Communication: How We Send Emotional Messages," Psychology Today, Vol. 8; Oct., 1974; pp. 52-56.

Descriptive in nature and based on psychological assumptions, this article repeats traditional "truisms." "Happy" dyads result in sitting close, touching, looking; "conflicting" couples cross arms, look away, and self-touch. Although not central to classroom concerns, some of the ideas might be fruitful for classroom research.

Birdwhistell, Ray L. "Collecting Data: Observing, Filming and Interviewing." Kinesics and Context. Phila.: Univ. of Pa. Press, 1970. pp. 147-170.

Excellent methodological procedures' recommendations are especially relevant to the experimenter and/or reader of research in teacher nonverbal communication.

ANNOTATED BIBLIOGRAPHY (continued)

Blake, Robert W. "I See What You Mean-But Not By Words: Extraverbal Communication." ETC: A Review of General Semantics. Vol. 30, no. 3; Sept., 1973; pp. 233-243.

Definitions and notations of proxemic transactions are listed and explained and placed within historical and literary reference.

_____, [no author] "Body Language: Student and Teacher Behavior." Saturday Review of Education. Vol. 1; May, 1973; p. 78.

Useful as a sample of the overgeneralized and inadequate material available on teacher nonverbal communication in educational journals.

Boucher, Jerry D. and Ekman, Paul. "Facial Areas and Emotional Information." Journal of Communication. Vol. 25, no. 2; Spring, 1975; pp. 75-91.

An up-to-date experiment which indicates that different areas of the face express different emotions. Of interest to scholars in the field, but not immediately relevant to teachers' concerns.

Breed, George. "Nonverbal Behavior and Teaching Effectiveness. Final Report." Vermillion: South Dakota University, Nov., 1971. ERIC No. ED 059 182.

Interested in the effects of certain nonverbal behaviors of teachers upon teaching effectiveness, Breed varies degree of lecturer eye contact with audience in four experiments. Essential reading for researchers.

Breed, George and Colaiuta, Victoria. "Looking, Blinking, and Sitting." Journal of Communication. Vol. 24; Spring, 1974; pp. 75-81.

The research here is based on Sommer and Schwebal and Cherlin's studies into classroom seating effects on behavior and scores. Here, classroom mobility is positively correlated with high exam scores. Excellent for the reader in teacher nonverbal communication.

Byers, Paul and Byers, Happie. "Nonverbal Communication and the Education of Children." Functions of Language in the Classroom. ed. C. Cayden et al., New York: Columbia University Teachers College Press, 1969.

ANNOTATED BIBLIOGRAPHY (continued)

This general article is designed-for-teachers. Examples of child-teacher interactions elucidate cultural and socio-economic differences in proxemics, kinesics and eye contact.

Civikly, Jean Marie. "A Description and Experimental Analysis of Teacher Nonverbal Communication in College Classrooms." Dissertation Abstracts International. Ann Arbor: University Microfilms, 1974. Vol. 35-02-A, p. 1265 #74-18011.
As cited earlier.

Coleman, James C. "Facial Expressions of Emotion." Psychological Monographs. Vol. 296, no. 63; 1949; pp. 1-36.
Here, early experimentation updates even earlier methods. Sketches and drawings of facial expressions are considered more "real" than those used previously. Results indicate that certain expressions are judged more accurately by one segment than by another. Not recommended except to those interested in history of methodology in nonverbal communication.

Davidson, Helen H. and Lang, Gerhard. "Children's Perceptions of Teachers' Feelings Toward Them Related to Self-Perception, School Achievement, and Behavior." Journal of Experimental Education. Vol. 24; Dec., 1960; pp. 107-118.
Decidedly "Laing-ian" in approach, this article does not even cover nonverbal behavior specifically.

Duke, Charles A. "Nonverbal Behavior and the Communication Process." College Composition and Communication. Vol. 25; Dec., 1974; pp. 397-404.
This general treatment of nonverbal communication in the classroom makes some useful suggestions for further research.

Dunning, G. B. "Research in Nonverbal Communication." Theory Into Practice. Vol. 10; Oct., 1971; pp. 250-258.
This compilation of research differentiates as to the following: facial, proxemics, body language, gesture, visual contact and others. An excellent bibliography, especially on psychological research, makes it a handy reference tool.

ANNOTATED BIBLIOGRAPHY (continued)

Ekman, Paul. "A Methodological Discussion of Nonverbal Behavior." Journal of Psychology. Vol. 43; 1957; pp. 141-149.

Ekman's early pre-video-tape article insists on the observability of nonverbal phenomena. Its importance lies in the fact that early definitional and methodological problems are already evident here.

Ekman, Paul. "Differential Communication of Affect By Head and Body Cues." Journal of Personality and Social Psychology. Vol. 2, no. 5; 1965; pp. 726-735.

Ekman's review of four experiments employing Schlosberg's dimensions of emotion conveys information on head and body cues. Providing essential discussion for the researcher, the article reveals methodological limitations and problems.

Ekman, Paul. "The Universal Smile: Face Muscles Talk Every Language." Psychology Today. Vol. 9; Sept., 1975; pp. 35-39.

Ekman offers another study here of Japanese, American and New Guineans to provide evidence as to the panculturality of facial expression. Bound by its story-telling and photo-displaying methodologies, it is nevertheless a tantalizing study for beginners.

Ekman, Paul and Friesen, Wallace V. "The Repertoire of Nonverbal Behavior: Categories, Origins, Usage, and Coding." Semiotica. Vol. I; 1969; pp. 49-98.

In this report of their recent research, Ekman and Friesen "map the elements" of nonverbal behavior, showing interrelationships of behaviors, environment, verbal media, intentionality, feedback and so on. The complexity and variety of the nonverbal repertoire as well as its relationship to other systems comes clear.

French, Russell L. "Analyzing and Improving Nonverbal Communication." Theory Into Practice. Vol. 10; Oct., 1971; pp. 306-307.

A four-phase program, good for in-service programs, is presented here. Teachers develop awareness in communication problems by assessing student and teacher behavior, room arrangement, etc.

ANNOTATED BIBLIOGRAPHY (continued)

A "buddy" system of teachers who use video-tapes of each others' teaching is a most practical suggestion. French makes an excellent reference for those working to improve in-school problems from inside the system.

Frois-Wittmann, J. "The Judgment of Facial Expression." Journal of Experimental Psychology. Vol. 13; 1930; pp. 113-151.
Early experimentation using sketches and photographs in facial expression judgment is reported here with commentary and theoretical problems. Outdated.

Galloway, Charles M. "An Analysis of Theories of Research in Nonverbal Communication." Washington: Dept. of HEW, Feb., 1972. ERIC No. ED 059 988.
An overview of recent developments, Galloway covers French, Heger, Anderson et al., Love-Roderick and his own study. In his review of problems of definition, problems of experimental design, problems of cultural and sociological influence, Galloway proves invaluable.

Galloway, Charles Millard. "An Exploratory Study of Observational..." Dissertation Abstracts Int'l. Ann Arbor: University Microfilms, 1962. Vol. 23/10 p. 3811; #62-06529.
As cited earlier.

Galloway, Charles M. "Nonverbal Communication." Instructor. Vol. 77; April, 1968; pp. 37-42.
A popularized-for-teachers version of his thesis.

Galloway, Charles M. "Nonverbal Communication." Theory Into Practice. Vol. 7; Dec., 1968; pp. 172-175.
A report of Galloway's other studies that attests to the paucity of teacher nonverbal literature available to journals.

Galloway, Charles M. "Nonverbal Communication in Teaching." Teaching: Vantage Points for Study. ed. Ronald T. Hyman, New York: J. B. Lippincott Co., 1968. pp. 70-79.

ANNOTATED BIBLIOGRAPHY (continued)

Galloway repeats his categories for teacher nonverbal observation here.

Galloway, Charles M. "Nonverbal Teacher Behaviors: A Critique." American Educational Research Journal. Vol. 11, no. 3; Summer, 1974; pp. 305-306.

This reply to Woolfolk and Woolfolk attacks methodology that employs verbal and nonverbal systems simultaneously, that uses a negative-to-negative hierarchy, and that assumes the equalization of the verbal and nonverbal. It is salient, succinct and critical.

Galloway, Charles M. "Nonverbal: The Language of Sensitivity." Theory Into Practice. Vol. 10; Oct., 1971; pp. 227-230. (Also reprinted in Vol. 13; Dec., 1974; pp. 380-383.)

Meant for teachers, this article looks for the heightening of sensitivity in classroom nonverbal understanding.

Galloway, Charles M. "Teacher Nonverbal Communication." Educational Leadership. Vol. 24; Oct., 1966; pp. 55-63.

Galloway publishes another report summarizing his other studies here.

Galloway, Charles M. "Teaching is Communicating: Nonverbal Language in the Classroom." Washington: Association for Student Teaching, Bulletin No. 29, 1970; pp. 1-24.

This brief popularization-for-teachers relays his instrument to the practising teacher. Influences of space, travel, time, and culture on nonverbals are made understandable but are not couched in scientific language.

Galloway, Charles M. "The Challenge of Nonverbal Research." Theory Into Practice. Vol. 10; Oct., 1971; pp. 310-314.

This brief overview of research raises important questions as to the efficacy of assumptions and methodology. Important to anyone entering the field.

ANNOTATED BIBLIOGRAPHY (continued)

Garner, C. William. "Non-Verbal Communication and the Teacher." School and Society. Vol. 98; Oct., 1970; pp. 363-364.

A generalized not-too-pithy teacher-aimed article, this may be useful for awareness-heightening typical of the oversimplified instruction teachers are receiving.

Goldberg, Gale and Mayerberg, Cathleen Kubiniee. "Emotional Reactions of Students to Nonverbal Teacher Behavior." The Journal of Experimental Education. Vol. 42, no. 1; Fall, 1973; pp. 29-32.

A fascinating experiment comparing white and black second and sixth graders' evaluations of nonverbal behaviors of teachers. Although questions concerning bias (one white female teacher lectured in the experiment) may arise, nevertheless the issues of culture vis-a-vis perception are key ones.

Grant, Ewan C. "Human Facial Expression." Man. Vol. 4NS; 1969; pp. 525-536.

This study, an ethological one, attempts to list all facial cues used in teaching both objectively and descriptively! For example, Grant breaks eyelid movement into seven separate motions. All of this was listed while observing nursery school teachers interacting with their students. Insufficient methodological procedures accompany the lists.

Guilford, J. P. "An Experiment in Learning to Read Facial Expression." Journal of Abnormal and Social Psychology. Vol. 24; 1929; pp. 191-202.

Even this early and possibly outdated study indicates that training in observation of nonverbals improves sensitivity.

Hall, Edward T. "A System for the Notation of Proxemic Behavior." American Anthropologist. Vol. 65; 1963; pp. 1003-1026.

Hall reviews his by-now renowned notational system for nonverbal behavior. Essential as background to the scholar of nonverbal research, it is referred to by many authors. Excellent when used with knowledge of its anthropological assumptions.

ANNOTATED BIBLIOGRAPHY (continued)

Hall, Edward T. "Proxemics." Current Anthropology. Vol. 9, no. 2-3; April-June, 1968; pp. 83-108.
Hall's anthropologically-based proxemic notational system is reviewed with helpful charts showing "...interplay of distant and immediate receptors." Kinesthetics, thermal, olfactory, and visual details are covered. Essential to those investigating use of space in the classroom or elsewhere.

Halpin, Andrew W. "Muted Language." School Review. Vol. 68; Spring, 1960; pp. 85-104.
This author recommends that school administrators examine their own nonverbal communication. Use of role-playing, training groups, group discussion and consulting are advised.

Harrison, Randall P. and Crouch, Wayne W. "Nonverbal Communication: Theory and Research." In Communication and Behavior, eds. Hanneman and McEwen. Reading, Mass: Addison-Wesley Pub. Co., 1975; pp. 76-97.
An overview of the nonverbal dimensions and codes opens the reader to a rapid once-over look. Good introductory reading in the general area of nonverbal communication is provided to the novice.

Harrison, Randall and Knapp, Mark L. "Nonverbal Communication Systems." Journal of Communication. Vol. 22; Dec., 1972; pp. 339-352.
This critical article sheds light on problems of definition and assumption for those working in the nonverbal area. Aimed at the scholar, the article is necessary to any who hopes to accomplish significant research in the field.

Hennings, Dorothy Grant and Grant, Barbara M. "Nonverbal Teacher Activity in the Classroom." Education. Vol. 93; Sept., 1972; pp. 42-44.
Desiring to stimulate the working teacher to self-analysis, Hennings and Grant define nonverbals in both personal and instructional modes. Directing the teacher to evaluate his own passive and active tendencies, they seek teacher awareness.

ANNOTATED BIBLIOGRAPHY (continued)

Hodge, R. Lewis. "Interpersonal Classroom Communication Through Eye Contact." Theory Into Practice. Vol. 10; Oct., 1971; pp. 264-267.

A teacher-intended article, this gives worthwhile hints as to how to make eye contact work more effectively in the classroom setting. It is one of few sources to discuss nonverbal "discipline."

Hodge, R. Lewis. "Recording Classroom Nonverbal Behavior for Effective Teacher Evaluation." Contemporary Education. Vol. 44, no. 3; Spring, 1975; pp. 189-193.

Hodge makes a plea for objectivity (i.e., reliable and valid scientific instrumentation) in evaluation of teacher nonverbal behavior here.

Hughes, Marie M. "What is Teaching: One Viewpoint." Educational Leadership. Vol. 19; Jan., 1962; pp. 251-259.

With a view toward recording teacher verbal and nonverbal behavior, Hughes sets up seven categories on the basis of descriptive observations. Lacking an experimental basis, the article implicitly advocates loose, anti-scientific study.

Kachur, Donald S. and Sweet, Bruce W. "Nonverbal Discipline." School and Community. Vol. 60; April, 1974; p. 31.

This brief list of nonverbal behaviors that may be used as strategies for classroom discipline is the only source, other than Hodge, in the area.

Kaplan, Bernard. "An Approach to the Problem of Symbolic Representation: Nonverbal and Verbal." Journal of Communication. Vol. 11; 1961; pp. 52-62.

A fascinating discussion of the nature of verbal and nonverbal symbolization is predicated on the assumption that there is a sequence of stages between symbolic activity and cognition. Designed for the scholar.

Kehoe, Nancy. "Nonverbal Communication: Male and Female Perceptions." Counseling and Values. Vol. 19; no. 3; April, 1975; pp. 181-185.

ANNOTATED BIBLIOGRAPHY (continued)

Kehoe summarizes the results of a doctoral dissertation investigating the differences between male and female, counselor and non-counselor readings of non-word cues. Excellent source for those seeking rationale for studies into male/female nonverbal perception.

Keith, L. Thomas; Tornatsky, Louis G.; Pettigrew, L. Eudora. "An Analysis of Verbal and Nonverbal Classroom Teaching Behaviors." The Journal of Experimental Education. Vol. 42, no. 4; Summer, 1974; pp. 30-37.

This study makes conclusions in two cases. First, teacher disapproval is verbally expressed consequent to pupil noise and blackboard use; second, teacher approval is nonverbally expressed consequent to task-related and pupil-participant activities in the classroom. All research is based on the assumption that positives and negatives are assignable to nonverbal behaviors.

Kendon, Adam. "The Role of Visible Behavior in the Organization of Social Interaction." Expressive Movement and Nonverbal Communication. eds. M. von Cranack, I. Vine. London: Academic Press, 1973.

Based on sociological assumptions, this work studies the interplay of group, role, and subgroup with proxemic and kinesic behavior. Such an approach might well shed light on teacher role vis-a-vis nonverbal communication.

Kleck, Robert E. "Interaction Distance and Non Verbal Agreeing Responses." British Journal of Social and Clinical Psychology. Vol. 9; 1970; pp. 180-182.

This experiment indicates that subjects agreed more at four feet distance from the experimenter than they did at ten feet away from the experimenter. Implications to classroom seating and discipline are obvious.

Kleck, Robert. "Physical Stigma and Nonverbal Cues Emitted in Face-to-Face Interaction." Human Relations. Vol. 21; 1968; pp. 19-27.

An experiment which compared nonverbal interaction with the physically "stigmatized" and

ANNOTATED BIBLIOGRAPHY (continued)

the physically normal showed that interactants with the former evidenced inhibited motor activity and distorted less positive opinions. This is as yet an almost unbroached question in teacher nonverbal communications.

Kleck, Robert E. and Nuessle, William. "Congruence Between the Indicative and Communicative Functions of Eye Contact in Interpersonal Relations." British Journal of Social and Clinical Psychology. Vol. 7; 1968; pp. 241-246.

Results here, again indicating the positive influence of eye contact, (with a greater degree of eye contact indicating liking, a lesser degree of eye contact indicating disliking) suggest an experimental springboard for use in classroom nonverbal communication.

Kleinfeld, J. S. "Effects of Nonverbally Communicated Personal Warmth on the Intelligence Test Performance of Indian and Eskimo Adolescents." Journal of Social Psychology. Vol. 91; 1973; pp. 149-150.

The finding that smiling, close (personal) distance and cooperative posture raised test scores above those resulting in the "cold" condition may provide further rationale for teacher nonverbal experimentation.

Knapp, Mark L. "The Role of Nonverbal Communication in the Classroom." Theory Into Practice. Vol 10; Oct., 1971; pp. 243-249.

A top-of-the-research-skimming article, this exposes the reader to the scope of current research but misses important exceptions. Knapp makes concrete recommendations and lists practical means for studying and/or improving teacher nonverbal communication.

Koch, Robert. "Nonverbal Observables." Theory Into Practice. Vol. 10; Oct., 1971; pp. 288-294.

Koch instructs administrators, teachers, and consultants in giving support in classroom settings to the study of and the improvement of nonverbal communication.

ANNOTATED BIBLIOGRAPHY (continued)

Koch, Robert. "The Teacher and Nonverbal Communication." Theroy Into Practice. Vol. 10; Oct., 1971; pp. 231-242.

This survey of nonverbal behavior in educational settings is intended to motivate teacher interest. Lacking in scientific detail, it is an informal and anecdotal article.

Lail, Sue S. "The Model in Use (Nonverbal Communication.)" Theory Into Practice. Vol. 8; 1969; pp. 176-180.

A chart-summary of Flanders and Galloway's system is contained in this useful, succinct article.

Levitt, Eugene A. "The Relationship Between Abilities to Express Emotional Meanings Vocally and Facially." in The Communication of Emotional Meaning. ed. Joel R. Davitz. New York: McGraw-Hill Book Co., 1964; pp. 87-100.

This study using sound-motion pictures is one of the earliest that determines the efficiency of vocal and facial channels; face cues were found more efficient than vocal cues. Problems inherent to methodology involve judge selection, judge training, and use of camera.

Loss, S. P. "Nonverbal Behavior of Teacher and Student: Clues to Teaching Effectiveness." American Vocational Journal. Vol. 48; Dec., 1973; pp. 23-24.

Skimming the issues, this article makes enormous assumptions as to evaluating teacher nonverbal behavior.

Love, Alice M. and Roderick, Jessie A. "Teacher Nonverbal Communication: The Development and Field Testing of an Awareness Unit." Theory Into Practice. Vol. 10; Oct., 1971; pp. 295-299.

Now famous, this article provides an instrument, coding system and guidelines for observation of teacher nonverbal behavior.

Medley, Donald M. and Mitzel, Harold E. "Application of Analysis of Variance to the Estimation of the Reliability of Observations of Teachers' Classroom Behavior." Journal of Experimental Education. Vol. 27; Sept., 1958; pp. 23-25.

Problems arising from methodology in evaluating teacher nonverbal and/or verbal

ANNOTATED BIBLIOGRAPHY (continued)

behavior led to this article. An analysis of use of variance and correlational techniques for estimating reliability coefficients led to the conclusion that the former has three distinct advantages. Mandatory reading for the experimenter in the field.

Medley, Donald M. and Mitzel, Harold E. "A Technique for Measuring Classroom Behavior." Journal of Educational Psychology. Vol. 49, no. 2; 1958; pp. 86-91.

Here, Medley and Mitzel summarize reasons for the innovation of OScAR, a technique for measuring classroom verbal and nonverbal behavior. This attempt at objective measurement constitutes a large contribution to the field.

According to Sandefur and Bressler, OScAR has been used in five adaptations since its original development.

Mehrabian, Albert. "Orientation Behaviors and Nonverbal Attitude Communication." Journal of Communication. Vol. 17; Winter, 1967; pp. 324-332.

This report of an experiment resulting in correlates of immediacy of head and body with inference of positive attitude may be groundwork for teacher nonverbal communication.

Mehrabian, Albert. "Relationship of Attitude to Seated Posture, Orientation and Distance." Journal of Personality and Social Psychology. Vol. 10, no. 1; 1968; pp. 26-30.

Results here show that liking is indicated by close distance, increased eye contact, and relaxation of the body. Mehrabian may provide some basis for such investigation in the classroom.

Mehrabian, Albert. "Significance of Posture and Position in the Communication of Attitude and Status Relationships." Psychological Bulletin. Vol. 71; 1969; pp. 359-372.

Research indicates that negative attitudes are conveyed by reclining, minimal eye contact and arms "akimbo" stance while positive attitudes are conveyed by leaning forward, medium eye contact,

ANNOTATED BIBLIOGRAPHY (continued)

and closeness. Low and high status are conveyed by discernable cues, also. Researchers in teacher nonverbal communication may find another area for study here.

Mehrabian, Albert and Ferris, Susan R. "Inference of Attitudes from Nonverbal Communication in Two Channels." Journal of Consulting Psychology, Vol. 31, no. 3; 1967; pp. 248-252.
Mehrabian and Ferris indicate that the facial carries more weight in message importance than the vocal, while the vocal is more important to message than the verbal.

Mehrabian, Albert and Friar, John T. "Encoding of Attitude By a Seated Communicator via Posture and Position Cues." Journal of Consulting and Clinical Psychology. Vol. 33; 1969; pp. 330-336.
Serious implications for teacher nonverbal behavior may be inherent in this study of attitude and posture, distance, and eye contact.

Mobbs, N. A. "Eye-Contact in Relation to Social Introversion/Extroversion." British Journal of Social and Clinical Psychology. Vol. 7; 1968; pp. 305-306.
The indication found here that extroverts maintain eye contact for longer durations than do introverts may "gibe" with Mehrabian's findings. Examination of the issue in relation to teacher effectiveness may be merited.

Parker, Larry R. and French, Russell L. "A Description of Student Behavior: Verbal and Nonverbal." Theory Into Practice. Vol. 10; Oct., 1971; pp. 276-281.
This extension of Flanders and Galloway into multi-dimensional evaluation is mandatory for anyone using or developing a verbal or nonverbal scale.

Perkins, Hugh V. "A Procedure for Assessing the Classroom Behavior of Students and Teachers." American Educational Research Journal. Vol. I; Nov., 1964; pp. 249-260.
Another mandatory source for those develop-

ANNOTATED BIBLIOGRAPHY (continued)

ing a scale and/or experimenting in the verbal/ nonverbal domain of the classroom.

Reece, Michael M. and Whitman, Robert N. "Expressive Movement, Warmth and Verbal Reinforcement." Journal of Abnormal and Social Psychology. Vol. 64; 1962; pp. 234-236.

Obvious as to its possible importance to the study of teacher nonverbal behavior is this experiment in which subjects interacting with a "cold" experimenter (who looked around, leaned away and drummed his fingers) verbalized less than the "highly-verbalizing" subjects with a "warm" experimenter (who made eye contact, leaned forward, and smiled).

Rosenfeld, Howard M. "Nonverbal Reciprocation of Approval: An Experimental Analysis." Journal of Experimental Social Psychology. Vol. 3; 1967; pp. 102-111.

Immediately relevant to teacher nonverbal communication is this study varying "teacher approval," "disapproval," and "non-responsiveness." Excellent source.

Rosenthal, Robert; Archer, Dane; et al. "Body Talk and Tone of Voice: The Language Without Words." Psychology Today. Vol. 8; Sept., 1974; pp. 64-68.

This article reports on an eleven channel test (PONS) that measures sensitivity to nonverbal cues. Possibly useful (although statistical results are lacking here) are the conclusions that women, girls, and males in the mental health and education fields score high.

Saine, Thomas J.; Levin, Madlyn A.; and McHose, Gaylynn E. "Assessing the Structure of Nonverbal Interaction." The Southern Speech Communication Journal. Vol. 40; Spring, 1975; pp. 275-286.

Anyone doing research on the nonverbal which resulted in statistical measurements might find this discussion of results helpful. In video-tape research, distributions were established for duration and frequency of nonverbal behaviors (which are found to be "consistently distributed in non-random ways.")

ANNOTATED BIBLIOGRAPHY (continued)

Saral, Tulsi B. "Cross-Cultural Generality of Communication via Facial Expressions." Comparative Group Studies. Vol. 3, no. 4; Nov., 1972; pp. 473-486.
Saral provides a good discussion of the pros and cons of various methodology that has been used and of the contributions of researchers relative to their methods.

Satir, Virginia. "Communication: A Verbal and Nonverbal Process of Making Requests of the Receiver." Basic Readings in Interpersonal Communication. ed. Giffin and Patton. New York: Harper and Row, 1971. pp. 21-39.
This easy-to-read outline covers the interactive and complex potentials of the verbal and nonverbal channels. Recommended for all novices.

Scheflen, A. E. "The Significance of Posture in Communication Systems." Psychiatry. Vol. 27; 1964; pp. 316-331.
This article is a "micro-mini" version of Scheflen's earlier work.

Schneider, John E. "Mino to Mino: Communication: Nonverbal Influence?" Theory Into Practice. Vol. 10; Oct., 1971; pp. 259-263.
This parapsychological and quasi-scientific article combines an extrasensory perception interest with the nonverbal, particularly to Galloway's system. Not recommended, except as highly tentative coupling of disparate modes.

Schum, Willard C. "The Effects of Training Student Teachers in Self-Analysis of NonVerbal Response Patterns." Chicago: American Educational Research Assoc., 1974. ERIC No. ED 088 829. pp. 1-12.
This experimentation into the "teachability" of nonverbal awareness in the classroom indicates that self-analysis and data-collecting by teachers heightens nonverbal awareness. Recommended to all who wish to investigate the area.

Schusler, Richard Allen. "Nonverbal Communication in the Elementary Classroom." Theory Into Practice. Vol. 10; Oct., 1971; pp. 282-287.
Schusler reviews his doctoral dissertation.

ANNOTATED BIBLIOGRAPHY (continued)

Schusler, Richard Allen. "Nonverbal Communication in the Elementary School Classroom." Dissertation Abstracts Int'l. Ann Arbor: University Microfilms, 1969. 30/09 A p. 3863 #69-19453.

Schusler investigates three instruments: a questionnaire regarding student feelings, a student response to teacher nonverbals, and a personal preference test. Although it presents a good case for instituting courses in nonverbal communication for teachers, it is notable also in its assumptions.

Seals, James M. and Kaufman, Peter A. "Effects of Nonverbal Behavior on Student Attitudes in the College Classroom." The Humanist Educator. Vol. 14, no. 2; Dec., 1975; pp. 51-54.

A skipping-and-skimming of nonverbal research preceeds a description of an experiment varying "still" live lecture, "active" live lecture and "active" video-tape lecture modes. The results, finding that students favor the "active" live instructor over the others, tend to add credence to Ekman. Questions arise in regard to the authors' correlation of results to students' attitudes toward learning or toward liking or toward persuasiveness.

Sherman, Eugene. "Listening Comprehension as a Function of Proxemic Distance and Eye-Contact." Graduate Research in Education and Related Disciplines. City University of New York: Vol. 7, no. 1; Fall, 1973; pp. 5-33.

An interesting experiment varying the conditions of distance and eye contact concludes that decreasing space heightens listening comprehension. Because of experimental design weakness, the findings as to eye contact influence do not reach validity. Further experimentation as to the effects of eye contact on listening comprehension may be fruitful.

Silberman, Harry F. "A Symposium on Current Research on Classroom Behavior of Teachers and Its Implications for Teacher Education." Journal of Teacher Education. Vol. 16; Sept., 1963; pp. 235-237.

Silberman overviews a section of the Journal devoted to recent writings regarding class-

ANNOTATED BIBLIOGRAPHY (continued)

room behavior. His orientation is towards solving methods' problems.

Strom, Robert and Ray, William. "Communication in the Affective Domain." Theory Into Practice. Vol. 10: Oct., 1971; pp. 268-275.

Although not specifically defining nonverbal behavior, this article suggests the positive use of nonverbals in its emphasis on play. Important to researchers in nursery school settings.

Strother, David B., Ayres, H. J., and Orlich, Donald C. "The Effects of Instruction in Nonverbal Communication on Elementary School Teacher Competency and Student Achievement: Final Report." Washington: Dept. of HEW; Oct., 1971. ERIC No. ED 056 005.

Although none of the hypotheses was confirmed in this experiment, the attempt to correlate instruction in nonverbal communication with teacher competency and student achievement is a crucial one. Future research must take this study into account.

In the study, reproductions of a complete unit for children including goals, materials, lessons, and quizzes is the only one this researcher has uncovered.

Victoria, James. "A Language for Affective Education." Theory Into Practice. Vol. 10; Oct., 1971; pp. 300-304.

This article provides a mixture of Victoria's philosophy and Victoria's thesis results. Although the questions raised formerly in this paper are attendant in the article, nevertheless, Victoria makes a good case for bettering teacher nonverbal communication.

Victoria, Joseph James. "Development of a Typology...." Dissertation Abstracts Int'l. Ann Arbor: University Microfilms, 1971. 31/09-A p. 4610. #71-06369.

An abstract of Victoria's thesis as discussed earlier.

ANNOTATED BIBLIOGRAPHY (continued)

Williams, Fred and Tolch, John. "Communication by Facial Expression." Journal of Communication. Vol. 15; 1965; pp. 17-21.

In this article, the authors set up, in opposition to the "good-bad" dichotomy (used in facial-expression-judgment) a "bias of neutral." It could prove helpful for those seeking objective and scientific data in the area.

Withall, John G. "The Development of a Technique for the Measurement of Social-emotional Climate in the Classroom." Journal of Experimental Education. Vol. 17; 1949; pp. 347-361.

Important only as background to the non-verbal studies is this explanation of the Withall verbal evaluation system.

Woolfolk, Robert L. and Woolfolk, Anita E. "Effects of Teacher Verbal and Nonverbal Behaviors on Student Perceptions and Attitudes." American Educational Research Journal. Vol. 11, no. 3; Summer, 1974; pp. 297-303.

Disagreeing with Mehrabian's findings is this study which finds verbal more influential than nonverbal to high scores on vocabulary tests. Some questions as to methodology and assumption do arise, however.

Woolfolk, Robert L. and Woolfolk, Anita E. "Nonverbal Teacher Behaviors: A Rejoinder." American Educational Research Journal. Vol. 11, no. 3; Summer, 1974; pp. 307-309.

Woolfolk and Woolfolk admit to problems in their own research in their reply to Galloway's critique. The dialogue between Galloway and the Woolfolks allows essential questions as to assumption and methodology to be raised.

APPENDIX A

OPERATING COMPONENTS OF INDIVIDUAL NONVERBAL COMMUNICATIONS SYSTEMS (and SUBSYSTEMS).*

COMMUNICATION SYSTEM	DIMENSIONS OF MEANING	FUNCTIONS	CHANNEL (CAPACITY)
Facial	Evaluation Interest Intensity Control	Displays emotions	Speed=5 Channel Separation=5 Accuracy=4 Emot. Information=5 Fact. Information=2
Gestural	Activation Evaluation Dynamism Control	Controls interaction; signals intensity of emotion	Speed=5 Channel Separation=3 Accuracy=4 Emot. Information=4 Fact. Information=3
Postural	Responsiveness Immediacy Agreement Power or Status	Some control of interaction; signals role expectations	Speed=2 Channel Separation=2 Accuracy=2 Emot. Information=3 Fact. Information=1

* Leathers, Nonverbal Communication Systems, pp. 230-231.

APPENDIX A (continued)

FEEDBACK (CORRECTIVE POTENTIAL)	BOUNDARIES	TEST OF COMMUNICATIVE BEHAVIOR WITHIN SYSTEMS
4.	Physical: flexibility of facial and bodily musculature; acuity of eyesight at different distances, etc.	Facial Meaning Sensitivity Test
5.		Leathers Nonverbal Feedback Rating Instrument
3.		

APPENDIX A (continued)

COMMUNICATION SYSTEM	DIMENSIONS OF MEANING	FUNCTIONS	CHANNEL (CAPACITY)
Proxemic (Interpersonal)	Domination Approval Extroversion Self-Confidence	Signals degree of involvement	Speed=3 Channel Separation=2 Accuracy=3 Emot. Information=4 Fact. Information=1
Proxemic (Urban)		Determines perceptual distance; affects interaction	Speed=1 Channel Separation=5 Accuracy=3 Emot. Information=4 Fact. Information=2
Artifactual	Body Types: lazy, talkative, warm, mature, self-reliant, suspicious, etc. Clothing: fashionability, socialization, and formality	Shapes reflective image and social identity	Speed=1 Channel Separation=4 Accuracy=4 Emot. Information=4 Fact. Information=3
Vocalic	Aggressiveness Potency Introversion Passionate	Shapes perceived; personality characteristics; signals emotions	Speed=5 Channel Separation=2 Accuracy=3 Emot. Information=4 Fact. Information=1

APPENDIX A (continued)

FEEDBACK (CORRECTIVE POTENTIAL)	BOUNDARIES	TEST OF COMMUNICATIVE BEHAVIOR WITHIN SYSTEMS
4.	Psychological: intimate, personal, social and public distance; turns, sheaths, personal space, and possession territory	
	Psychological and Physical: paths, edges, districts, etc.	
2.	Social: roles dictate clothing and acceptable types of social interaction	Body Image Test
5.	Physical: producibility and audibility of attributes of sound	Vocalic Meaning Sensitivity Test

APPENDIX A (continued)

COMMUNI-CATION SYSTEM	DIMENSIONS OF MEANING	FUNCTIONS	CHANNEL (CAPACITY)
Tactile	Mothering Fearful Detached Playful	Warning and alert signals for primitive emotions	Speed=1 Channel Separation=2 Accuracy=3 Emot. Information=4 Fact. Information =1
Olfactory		Modification of reflective image; conveys emotions	Speed=1 Channel Separation=5 Accuracy=3 Emot. Information=4 Fact. Information=1
Telepathic		Transmission and reception of imagery	Speed=5 Channel Separation=1 Accuracy=1 Emot. Information=2 Fact. Information=1

APPENDIX A (continued)

FEEDBACK (CORRECTIVE POTENTIAL)	BOUNDARIES	TEST OF COMMUNICATIVE BEHAVIOR WITHIN SYSTEMS
1.	Physical: must be close enough to touch or be touched	Tactile Communication Index
1.	Chemical: natural and artificial odors are difficult to control and manipulate	Olfactory Meaning Sensitivity Test
Not Known	Extrasensory: energy source for signals is unknown	Telepathic Communication Test

APPENDIX B

FLANDERS SYSTEM OF INTERACTION ANALYSIS*

Teacher Talk

Indirect influence

1. Accepts feeling: accepts and clarifies the feeling tone of the students in a nonthreatening manner. Feelings may be positive or negative. Predicting and recalling feelings are included.
2. Praises or encourages: praises or encourages student action or behavior. Jokes that release tension, not at the expense of another individual, nodding head and saying "uh huh?" or "go on" are included.
3. Accepts or uses ideas of student: clarifying, building or developing ideas or suggestions by a student. As teacher brings more of his own ideas into play, shift to category five.
4. Asks questions: asking a question about content or procedure with the intent that a student answer.

Direct influence

5. Lectures: giving facts or opinions about content or procedure; expressing his own idea; asking rhetorical questions.
6. Gives directions: directions, commands, or orders with which a student is expected to comply.
7. Criticizes or justifies authority: statements, intended to change student behavior from nonacceptable to acceptable pattern; bawling someone out; stating why the teacher is doing extreme self-reference.

---

* Amidon and Flanders, The Role of the Teacher in the Classroom, p.

APPENDIX B (continued)

Student talk

8. Student talk-response: talk by students in response to teacher. Teacher initiates the contact or solicits student statement.

9. Student talk-initiation: talk by students, which they initiate. If "calling on" student is only to indicate who may talk next, observer must decide whether student wanted to talk. If he did, use this category.

---

10. Silence or confusion: pauses, short periods of silence, and periods of confusion in which communication cannot be understood by the observer.

APPENDIX C

GALLOWAY'S CATEGORIES*

Encouraging Communication

1. Enthusiastic Support. A nonverbal expression implying enthusiastic support of a pupil's behavior, pupil interaction, or both. An expression that manifests enthusiastic approval, unusual warmth, or emotional support; being strongly pleased. An expression that exhibits strong encouragement to pupil. Examples of nonverbal determinants are as follows:

   1. Facial expression. Any expression that implies support or approval of some behavior or interaction occurring in the classroom. Any facial expression that connotes enjoyment, pleasure, or satisfaction with the pupil, or the topic.

   2. Action. Any movement or action that portrays enthusiastic approval and active acceptance in an approving way, e.g., a pat on the back, or a warm greeting of praise. An act that endorses approval of the pupil, and gives strong encouragement.

   3. Vocal language. Any voice quality indicating pleasure or warm acceptance. The use of the voice through intonation or inflection suggests approval and support.

2. Helping. A responsive act that relates to modifications in the teacher's behavior which suggest a detection of expressed feelings, needs, urgencies, problems, etc., in the pupil. A communicative act that performs a function which helps a pupil or answers a need. An act that meets a pupil's request; a nurturant act. This act is the spontaneous reaction that the teacher manifests in the form of an actual response. It may be either intellectually supporting, or problem-centered. Examples of nonverbal determinants:

* Galloway, "An Exploratory Study...," Appendix A, pp. 146-149.

APPENDIX C (continued)

1. Facial expression. An expression that implies, "I understand," or "I know what you mean," which is followed up by some kind of appropriate action. An expression that is consistent and sensitive to the pupil's need. A facial expression that registers an acceptance and an understanding of a pupil's problem.

2. Action. A movement or action that is intended to help or perform a function for the pupil. The action of the teacher is consistent with the need expressed by the pupil. Any action that suggests understanding and assistance.

3. Vocal language. A vocal utterance that is acceptant and understanding. The voice may be tender, compassionate, or supportive; or it may be a laugh or vocalization that breaks the tension.

3. Receptivity. A nonverbal expression that implies a willingness to listen with patience and interest to pupil talk. By paying attention to the pupil, the teacher exhibits an interest in the pupil, and implicitly manifests approval, satisfaction, or encouragement. Such a nonverbal expression implies to the pupil that "lines of communication are open."

1. Facial expression. Maintains eye contact with pupil in a systematic fashion, exhibiting interest in pupil, pupil's talk, or both. Facial expression indicates patience and attention. Other expressions suggest a readiness to listen, or an attempt at trying to understand.

2. Action. The teacher's demeanor suggests attentiveness by the way the total body is presented and movements used. An expressional pose or stance that suggests alertness, readiness, or willingness to have pupils talk. Teacher may be paying attention to pupil talk, even though eye contact is not established. A moving gesture that indicates the pupil is on the "right track." A gesture that openly or subtly encourages the pupil to continue.

3. Vocal language. A vocal utterance or vocalization that augments pupil talk, or that encourages the pupil to continue. An utterance indicating "yes-yes" (um-hm), "go on," "okay," "all right," or

APPENDIX C (continued)

"I'm listening." Although in a sense, the utterance can be characterized as an interruption, it in no way interferes with the communication process; indeed, such a vocalization supplements, and encourages the pupil to continue.

4. Pro forma. A communicative act that is a matter of form, or for the sake of form. Thus, the nature of the act, whether it is a facial expression, action, or vocal language, conveys little or no encouraging or inhibiting communicative significance in the contextual situation; a routine act. When the pupil is involved in a consummatory act, or when it is inappropriate or unnecessary for the teacher to listen or to respond, pro forma applies.

5. Inattentive. A nonverbal expression that implies an unwillingness or inability to engage attentively in the communicative process, thus, indicating disinterest or impatience with pupil talk. By being inattentive or disinterested the teacher inhibits the flow of communication from pupils.

   1. Facial expression. Avoids eye contact to the point of not maintaining attention; exhibits apparent disinterest, or impatience with pupil by showing an unwillingness to listen.

   2. Action. An expressional pose or movement that indicates disinterest, boredom, or inattention. A demeanor suggesting slouchy or unalert posture. Body posture indicates "don't care attitude," or an ignoring of pupil talk. Postural stance indicates internal tension, preoccupation with something else, or apparently engrossed in own thought. Either a moving or completed hand gesture that suggests the teacher is blocking pupil talk, or terminating the discussion.

   3. Vocal language. A vocal utterance that indicates impatience, or "I want you to stop talking."

6. Unresponsive. A communicative act that openly ignores a pupil's need, or that is insensitive to pupil's feeling; a tangential response. Display of egocentric behavior or a domination of communication situation by

APPENDIX C (continued)

interrupting or interfering in an active fashion with the ongoing process of communicating between pupils, or from pupil to teacher. An annoying, or abusive act; or a failure to respond when a response would ordinarily be expected by ignoring a question or request.

1. Facial expression. An expression that is troubled, unsure, or unenthused about the topic in question. An expression that threatens or cajoles pupils; a condescending expression; an unsympathetic expression; or an impatient expression. An obvious expression of denial of feeling of pupil, or noncompliance of a request.

2. Action. Any action that is unresponsive to or withdrawing from a request or expressed need on the part of the pupil. An action that manifests disaffection or unacceptance of feeling. A gesture that suggests tension or nervousness.

3. Vocal language. A vocalization that interferes with or interrupts ongoing process of communication between pupils, or from pupil to teacher. Such a vocalization, when it is an obvious interruption, appears unresponsive to the flow of communication and to the pupils.

7. Disapproval. An expression implying strong disapproval of a pupil's behavior or pupil interaction. An expression that indicates strong negative overtones, disparagement, or strong dissatisfaction.

1. Facial expression. The expression may be one of frowning, scowling, threatening glances. Derisive, sarcastic, or disdainful expression may occur. An expression that conveys displeasure, laughing at another, or that is scolding. An expression that "sneers at" or condemns.

2. Action. Any action that indicates physical attack or aggressiveness, e.g., a blow, slap, or pinch. Any act that censures or reprimands a pupil A pointed finger that pokes fun, belittles, or threatens pupils.

APPENDIX C (continued)

3. Vocal language. Any vocal tone that is hostile, cross, irritated, or antagonistic to pupil. The vocalization is one of disappointment, depreciation, or discouragement. An utterance suggesting unacceptance.

APPENDIX D

SAMBLE OF GALLOWAY'S OBSERVATION EPISODES*

The teacher is talking with the participant in the front of the room and the children are working at their desks. The room is very quiet. The teacher moves over to a table and begins looking through magazines. A boy walks over to T and asks something. T looks at him frowning, and goes, "Shhh." The boy looks somewhat disappointed but goes back to his seat without saying anything else.

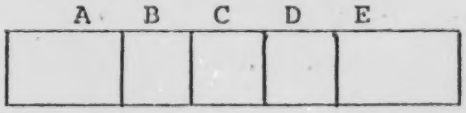
The teacher marks a place in a magazine, looks around the room, picks up another magazine, and continues looking through it. A boy walks up with his paper in his hand. He shows it to T, asking something. T frowns irritably at him, saying, "This is to see how well you follow directions. (T hands paper back.) Go straight to your desk and start over. This time do some thinking." T's manner is reproachful. The boy took the paper, sighed, and returned to his desk.....

* Galloway, "An Exploratory Study...," Appendix B, p. 150.

APPENDIX E

GALLOWAY'S STUDENT CONTINUUM*

On the next page are pairs of words. In each pair, one is the opposite of the other. There are five steps between the pairs of words as shown below.

Pleasant 

Unpleasant

Consider the words Pleasant and Unpleasant. Here is what you are supposed to do. If you feel your teacher judges you as being pleasant most of the time, put an X in the "A" box. If you feel your teacher considers you to be unpleasant most of the time, place an X in the "E" box. If you feel your teacher considers you to be pleasant sometimes and unpleasant sometimes, mark the "C" box. If you feel your teacher considers you to be somewhat more pleasant than unpleasant, put an X in the "B" box. If your teacher considers you to be somewhat more unpleasant than pleasant, place an X in the box marked "D."

.....

* Galloway, "An Exploratory Study...," Appendix C, pp. 151-152.

APPENDIX E (continued)

NAME _____

GRADE _____

	A	B	C	D	E	
1. Selfish						Unselfish
2. Obedient						Disobedient
3. Intelligent						Unintelligent
4. Good						Bad
5. Sad						Happy
6. Clean						Dirty
7. Cowardly						Brave
8. Honest						Dishonest
9. Calm						Nervous
10. Unfair						Fair
11. Kind						Cruel
12. Unfriendly						Friendly
13. Wise						Foolish
14. Rude						Polite
15. Alert						Lazy
16. Passive						Active
17. Reliable						Unreliable
18. Nice						Awful
19. Unpopular						Popular
20. Curious						Indifferent

APPENDIX E (continued)

	A	B	C	D	E	
21. Careless						Careful
22. Childish						Mature
23. Attentive						Inattentive
24. Disorderly						Orderly
25. Respectful						Disrespectful

APPENDIX F

GALLOWAY'S LATER CATEGORIES FOR NONVERBAL AND VERBAL OBSERVATION*

Indirect-Direct (Verbal)	Encouraging-Restricting (Nonverbal)
Accepts student feeling	
Praises or encourages	Congruent-Incongruent
Uses student idea	Implementing-Perfunctory
Asks questions	Personal-Impersonal
Lectures--gives information	Responsive-Unresponsive
Gives direction	Involving-Dismissing
Criticizes or justifies authority	Firm-Harsh
Student talk (response)	Receptive-Inattentive
Student talk (initiated)	Receptive-Inattentive
Silence or confusion	Comforting-Distressing

Given an understanding of the rationale and background of this system, an observer can record in verbal and nonverbal categories. This system is designed to enable an observer to use the categories, time intervals, and ground rules of the original Flanders system while recording the nonverbal dimensions as well. By marking a slash (encouraging) or dash (restricting) to the right of recorded tallies, an observer can record both the verbal and nonverbal dimensions. A circle number is used to enclose the tally when teacher behavior is solely nonverbal.

A significant amount of data suggests that Interaction Analysis can be learned easily and used with reliability. Because of this and because the Flanders system focuses primarily upon verbal behavior, adding nonverbal dimensions has been successful. Combining verbal categories with relevant nonverbal dimensions affords a unique approach to a complete analysis of interaction in the classroom.

* Galloway, "Teaching is Communicating...," p. 16.

APPENDIX G

LAIL'S CHART SHOWING GALLOWAY'S EXTENSION OF FLANDERS* (PRO FORMA NOT INCLUDED)

Summary of Categories for Interaction Analysis Using Nonverbal Categories

	Verbal (Flanders)		Nonverbal (Galloway)	
			Encouraging	Restricting
TEACHER TALK Indirect Influence	1. ACCEPTS FEELING	1.		11.
	2. PRAISES OR ENCOURAGES	2.	CONGRUENT: nonverbal cues reinforce and further clarify the credibility of a verbal message.	12. INCONGRUENT: contradiction occurs between verbal and nonverbal cues.
	3. ACCEPTS OR USES IDEAS OF STUDENT	3.	IMPLEMENT: implementation occurs when the teacher actually uses student's idea either by discussing it, reflecting on it, or turning it to the class for consideration.	13. PERFUNCTORY: perfunctory use occurs when the teacher merely recognizes or acknowledges student's idea by automatically repeating or restating it.

* Lail, "The Model in Use," p. 177.

APPENDIX G (continued)

	Verbal (Flanders)	Nonverbal (Galloway)	
		Encouraging	Restricting
TEACHER TALK Indirect Influence	4. ASKS QUESTIONS	4. PERSONAL: face-to-face confrontation.	14. IMPERSONAL: avoidance of verbal interchange which mutual glances are exchanged.
Direct Influence	5. LECTURES	5. RESPONSIVE: change in teacher's pace or direction of talk in response to student behavior, i.e., bored, disinterested, or inattentive.	15. UNRESPONSIVE: inability or unwillingness to alter the pace or direction of lecture disregarding pupil cues.
	6. GIVES DIRECTIONS	6. INVOLVE: students are involved in a clarification or maintenance of learning tasks.	16. DISMISS: teacher dismisses or controls student behavior.
	7. CRITICISMS OR JUSTIFIED AUTHORITY	7. FIRM: criticisms which evaluate a situation cleanly and clarify expectations for the situation.	17. HARSH: criticisms which are hostile, severe, and often denote aggressive or defensive behavior.

APPENDIX G (continued)

	Verbal (Flanders)	Nonverbal (Galloway)	
		Encouraging	Restricting
STUDENT TALK	8. STUDENT TALK-RESPONSE	8.&9. RECEPTIVE: involves attitude of listening and interest, facial involvement, and eye contact.	18.&19. INATTENTIVE: involves a lack of attending eye contact and teacher travel or movement.
	9. STUDENT TALK INITIATION		
	10. SILENCE OR CONFUSION	10. COMFORT: silences characterized by times of reflection, thought, or work.	20. DISTRESS: instances of embarrassment or tension-filled moments, usually reflecting disorganization and disorientation.

APPENDIX H

VICTORIA'S CATEGORIES*

A. EYE CONTACT

- Student
- Group
- Class
- Board/Object
- Avoiding
- Downcast

B. FACIAL MOTION

- Raised Eyebrow/s
- Grin
- Slight Smile
- Full Smile
- Laugh
- Frown
- Grimace/Pursed Lips

C. HEAD MOTION

- Nod/s
- Inclined
- Turns Head to R or L
- Turns "NO"

D. BODY POSTURE

- Stands
- Sits
- Leans
- Slouches
- Arm/s Folded
- Hands Clasped
- Hand/s on Hip/s

E. BODY MOTION

- Shifts Weight
- Shrugs Shoulders
- Bends from Waist
- Turns from Waist
- Walks to Student
- Walks to Group
- Walks to Board/Object
- Circulates
- Paces

F. ARM HAND FINGER MOTION

- One Arm Hand
- Both Arms Hands
- At Side of Body
- In Front of Body
- Across Body
- Away from Body
- Toward Body
- R - L or L - R
- Up and Down
- Loop/s
- Sweep/s
- Palm/s Out from Body
- Palm/s In to Body
- Palm/s Down
- Palm/s Up
- Palm/s Vertical
- Partial Fist
- Closed Fist
- All Fingers Extended
- Index Finger Extended
- Other Finger Position

* Victoria, "Development of a Typology...," Appendices B and C (abbreviated), pp. 142-145.

APPENDIX H (continued)

G. DIRECTED ARM HAND FINGER MOTION

One Arm Hand
Both Arms Hands
Pointing to Self
Pointing to Student
Pointing to Group/Class
Pointing to Board/Object
Touching Self
Touching Board/Object
Grasping/Holding Object
Manipulating Object
Writing/Dwg. on Board

APPENDIX H (continued)

EYE CONTACT	FACIAL MOTION	HEAD MOTION	BODY POSTURE
0 1 2 3 4 5 6 7	0 1 2 3 4 5 6 7	0 1 2 3 4 5 6 7	0 1 2 3 4 5 6 7
0 1 2 3 4 5 6 7	0 1 2 3 4 5 6 7	0 1 2 3 4 5 6 7	0 1 2 3 4 5 6 7
0 1 2 3 4 5 6 7	0 1 2 3 4 5 6 7	0 1 2 3 4 5 6 7	0 1 2 3 4 5 6 7
0 1 2 3 4 5 6 7	0 1 2 3 4 5 6 7	0 1 2 3 4 5 6 7	0 1 2 3 4 5 6 7

BODY MOTION	ARM HAND FINGER MOTION	DIRECTED ARM HAND FINGER MOTION
0 1 2 3 4 5 6 7	0 1 2 3 4 5 6 7	0 1 2 3 4 5 6 7
0 1 2 3 4 5 6 7	0 1 2 3 4 5 6 7	0 1 2 3 4 5 6 7
0 1 2 3 4 5 6 7	0 1 2 3 4 5 6 7	0 1 2 3 4 5 6 7
0 1 2 3 4 5 6 7	0 1 2 3 4 5 6 7	0 1 2 3 4 5 6 7

TAPE _____ OBSERVATION _____ NO. ____

APPENDIX I

VICTORIA'S DEFINITION OF TRANSACTIONAL AND NONTRANSACTIONAL NONVERBAL BEHAVIOR*

Analysis of all the data supported the formulation of a typology of nonverbal behavior of student teachers that would be related to transactional and non-transactional patterns of body motion and directional focus within contexts of teaching-learning situations. In this study, transactional gestural behaviors are those that may be either consciously or unconsciously used by the student teacher and are reflective of the student teacher's direct influence on others; non-transactional gestural behaviors are those that are not consciously controlled by the student teacher and are reflective of the student teacher's inner state and attitude towards others. Student teacher gestural behaviors that serve as interactive and spatial referents to others within contexts of art teaching-learning situations are classified as transactional behavior. Student teacher gestural behaviors that serve as image reflecting referents of the student teacher to others within contexts of art teaching-learning situations are classified as non-transactional.

The typology of nonverbal behavior of student teachers relative to contexts within art teaching-learning

*Victoria, "Development of a Typology...," pp. 41-42.

APPENDIX I (continued)

situations is as follows:

Transactional Nonverbal Behavior

(Interactive and Spatial Referents)

Eye Contact
Facial Motion
Body Motion
Arm-Hand-Finger Motion
Directed Arm-Hand-Finger Motion

Non-Transactional Nonverbal Behavior

(Image Reflecting Referents)

Head Motion
Body Posture
Directed Arm-Hand-Finger Motion

The category Eye Contact contains such signs of patterned body motion and directional focus as avoiding, downcast, or directed to individuals or objects. Signs such as grins, smiles, frowns, or grimaces are included in the category Facial Motion. The category Head Motion is characterized by affirmative or negative motions and inclined, up-turned, or down-turned positions. Body Posture includes such positional signs as standing, sitting, leaning, and also such postural characteristics as arm folded, hands on hips, or hands clasped. Body Motion signs are such movements as shifting weight, shrugging shoulders, pacing, and proximity of location in relation to individuals or objects and environmental

APPENDIX I (continued)

setting. The category, Arm-Hand-Finger Motion contains signs that are primarily positional and descriptive, that is, in front of the body, across the body, away from or toward the body and sweeps or loops. The Directed Arm-Hand-Finger Motion category contains primarily the same patterned motions and directional focus as that of Arm-Hand-Finger Motion, but they are distinctive in that they are characterized by pointing to self, others, or objects. Manipulating, grasping, and holding behaviors are also included in the Directed Arm-Hand-Finger category. The patterned motions and directional focus of these behaviors may be either transactional or non-transactional, and are, therefore, placed in both categories in the typology.

APPENDIX J

VICTORIA'S SEVEN CATEGORIES EVOKED BY TEACHER GESTURAL BEHAVIOR*

1. Enthusiastic

   Nonverbal behaviors that evoke qualities of unusual enthusiasm, warmth, encouragement, or emotional support for students or topic.

2. Receptive-Helpful

   Nonverbal behaviors that evoke qualities of attentiveness, patience, willingness to listen, acceptance or approval; a responsiveness to students or situations implying receptiveness of expressed feelings, needs or problems.

3. Clarifying-Directive

   Nonverbal behaviors that evoke qualities of clarification, elaboration, direction or guidance.

4. Neutral

   Nonverbal behaviors that evoke qualities of little or no supportive or unsupportive significance within contextual situations; routine acts.

5. Avoidance-Insecurity

   Nonverbal behaviors that evoke qualities of

*Victoria, "Development of a Typology...," pp. 44-45.

APPENDIX J (continued)

avoidance, insecurity, insensitivity, impatience, ignorance, or disruption to students, topic or situations.

6. Inattentive

Nonverbal behaviors that evoke qualities of inattentiveness, pre-occupation, apparent disinterest; an unwillingness or inability to engage students, topic or situations.

7. Disapproval

Nonverbal behaviors that evoke qualities of disapproval, dissatisfaction, disparagement or negative overtones to students, topic or situations.

APPENDIX K

VICTORIA'S GUIDELINES FOR JUDGES*

1. Eye Contact: Judge all eye positions that can be seen. Category is primarily one of focus. Use zero only when head is in a position where eye position, motion or focus cannot be discerned.
2. Facial Motion: Category includes position as well as motion. Includes all feature motions such as smiles, frowns, raised eyebrows, etc., as well as composite facial position or expression such as "passive," "perplexed," "sarcastic," "enthusiastic," etc.
3. Head Motion: All head positions as well as motions are judged.
4. Body Posture: Primarily a positional category and not a motion category.
5. Body Motion: Primarily a motion category. When no evidence of motion is discernable score zero.
6. Arm-Hand-Finger Motion: Category is one of position and motion.
7. Directed Arm-Hand-Finger Motion: Category is

* Victoria, "Development of a Typology...," pp.54-55.

APPENDIX K (continued)

one of position and motion, characterized by touching, pointing and manipulating behaviors.

8. Arm-Hand-Finger Motion and Directed Arm-Hand-Finger Motion are two distinct categories. When no evidence of the behaviors contained in either category are discernible, whether it be one or both arms-hands, score zero.
9. In judging qualities of nonverbal behavior in each category remember that only an intuitive judgment is to be made, i.e., no analysis.
10. Do not give the student teacher "benefit of the doubt," judge on first intuitive perception only.

APPENDIX L

LOVE-RODERICK'S NONVERBAL CATEGORIES AND SAMPLE TEACHER BEHAVIORS*

1. Accepts Student Behavior
   Smiles, affirmatively shakes head, pats on the back, winks, places hand on shoulder or head.

2. Praises Student Behavior
   Places index finger and thumb together, claps, raises eyebrows and smiles, nods head affirmatively and smiles.

3. Displays Student Ideas
   Writes comments on board, puts students' work on bulletin board, holds up papers, provides for nonverbal student demonstration.

4. Show Interest in Student Behavior
   Establishes and maintains eye contact.

5. Moves to Facilitate Student-to-Student Interaction
   Physically moves into the position of group member, physically moves away from the group.

6. Gives Directions to Students
   Points with the hand, looks at specified area, employs pre-determined signal (such as raising hands for students to stand up), reinforces numerical aspects by showing that number of fingers, extends arms forward and beckons with the hands, points to student for answers.

7. Shows Authority Toward Students
   Frowns, stares, raises eyebrows, taps foot, rolls book on the desk, negatively shakes head, walks or looks away from the deviant, snaps fingers.

8. Focuses Students' Attention on Important Points
   Uses pointer, walks toward the person or object, taps on something, thrusts head forward, thrusts arm forward, employs a nonverbal movement with a verbal statement to give it emphasis.

* Love and Roderick, "Teacher Nonverbal Communication...," pp. 295-296.

APPENDIX L (continued)

9. Demonstrates and/or Illustrates
   Performs a physical skill, manipulates materials and media, illustrates a verbal statement with a nonverbal action.

10. Ignores Student Behavior
    Lacks nonverbal response when one is ordinarily expected.

APPENDIX M

LOVE-RODERICK TALLY SHEET

FOR NONVERBAL BEHAVIOR*

	1	2	3	4	5
1. Accepts Student Behavior					
2. Praises Student Behavior					
3. Displays Student Ideas					
4. Shows Interest in Student Behavior					
5. Moves to Facilitate Student-to-Student Interaction					
6. Gives Directions to Students					
7. Shows Authority Towards Students					
8. Focuses Students' Attention on Important Points					
9. Demonstrates and/or Illustrates					
10. Ignores Student Behavior					

* Love and Roderick, "Teacher Nonverbal Communication...," p. 296.

APPENDIX N

MORGANSTERN'S ADAPTATION OF LOVE-RODERICK WITH EVALUATIVE CLASSIFICATIONS ADDED****

CATEGORY NUMBER ONE:

ACCEPTS OR PRAISES STUDENT BEHAVIOR

DEFINITION:

Teacher behavior directed toward the student(s), that tends to enhance, reinforce, please or suggest positive feedback regarding a student behavior.

POSITIVE EXAMPLES OF CATEGORY ONE:

The teacher:

1) smiles (at student).

2) affirmatively shakes head and/or smiles.

3) pats student on the back (or other physical nonverbal gestures of acceptance such as placing hand on shoulder or head of student, or putting arm around student.)*

4) winks (observed as intentional or purposive, not an habitual or nervous twitch which will fall within the parameter of the personal moves category).**

5) places forefinger and thumb together (A-OK sign).

6) claps.

7) raises eyebrows and/or smiles (and other affirmative signals).***

* Added to the original category system for clarification of this category.
** Added to the original system
*** Added to the original system
**** Morganstern, "Rationale and Training...," pp.4-5.

APPENDIX N (continued)

NOTE:

Remember that the and/or rule applies here. That is to say, that any nonverbal behaviors specific to this category will be considered as positive examples whether they be exhibited independently or in combination.

For example, the seventh attribute listed in category one states: that the teacher "raises eyebrows and/or smiles." These two behaviors could occur and be listed separately if they occur independent of each other in time. Indeed, should the teacher smile, shake his head affirmatively, and clap (2, 1, 6) at the same time, you would code this as a single positive instance of category one.

NEGATIVE EXAMPLES:

Some teacher behaviors that do not conform to category one

The teacher:

1) negatively shakes his head.

2) frowns (at student).

3) presents "thumbs down sign" or "your out" signal. sic, you're

4) turns away from the student when positive feedback is expected.

REMEMBER:

An inappropriate or contradictory combination of behaviors such as, the teacher smiles and shakes his head negatively will not be considered a positive instance of this category. However, the determination of any contradiction may have to be based on the verbal context in which it occurs. This rule will apply to each of the nine categories coded.

APPENDIX O

CHEFFERS' CATEGORIES*

Coding Symbols

Teacher (.), Environment (E), Student (S)

Categories	Relevant Behaviours: Verbal		Nonverbal
2-12**	2		12
	Praises, commands, jokes encourages.	Face:	Smiles, nods with smile, (energetic) winks, laughs.
		Posture:	Claps hands, pats on shoulder, places hand on head of student, rings student's hand, embraces joyfully, laughs to encourage, catches in gymnastics, helps child over obstacles.
3-13	3		13
	Accepts, clarifies, uses and develops suggestions and feelings by the learner.	Face.	Nods without smiling, tilts head in empathetic reflection, sighs empathetically.

* Cheffers, "Validation of an Instrument...," pp. 34-38.
** No category 1-11 appears in Cheffers' system.

Categories	Relevant Behaviours: Verbal		Relevant Behaviours: Nonverbal
		Posture:	Shake [sic, shakes] hands, embrace [sic, embraces] sympathetically, place [sic, places] hand on shoulder, puts arm around shoulder of [sic, or] waist, catches an implement thrown by student, accepts facilities, teacher playing game with students as one member of team.
4-14	4		14
	Asks questions requiring student answer.	Face:	wrinkles brow, opens mouth, turns head with quizzical look.
		Posture:	places hands in air, waves finger to and fro anticipating answer, stares awaiting answer, scratches head, cups hand to ear, stands still half turned towards person, awaits answer.

APPENDIX O (continued)

Categories	Relevant Behaviours		
	Verbal	Nonverbal	
5-15	5		15
	Gives facts, opinions, expresses ideas or asks rhetorical questions.	Face:	Whispers words inaudibly, sings or whistles.
		Posture:	gesticulates, draws, writes, demonstrates activities, paints.
6-16	6		16
	Gives directions or orders.	Face:	Points with head, beckons with head, yells at.
		Posture:	Points finger, blows whistle, holds body erect while barking commands, push [sic, pushes] a child through a movement, push [sic, pushes] a child in a given direction.

APPENDIX O (continued)

Categories	Relevant Behaviours: Verbal		Nonverbal
7-17	7		17
	Criticizes, expresses anger or distrust, sarcastic or extreme self reference.	Face:	Grimaces, growls, frowns, drops head, throws head back in derisive laughter, rolls eyes, bites, spits, buts [butts] with head, shakes head.
		Posture:	Hits, pushes away, pinches, grapples with, pushes hands at student, drops hands in disgust, bangs table, damages equipment, throws things down.
8-18	8		18
	Student response which is entirely predictable such as obedience to orders and responses not requiring thinking beyond the comprehension phase of knowledge (after Bloom).	Face:	Poker face response, nod, [sic, nods] shake, [sic, shakes] gives small grunts, quick smile.
		Posture:	moves [sic, Moves] mechanically to questions or directions, responds to any action with minimal nervous activity, robot like. [sic, robot-like]

APPENDIX O (continued)

Categories	Relevant Behaviours: Verbal		Nonverbal
Eine (8\)	Eine (8\)		Eineteen (18\)
Eineteen (18\)	Predictable student responses which required [sic, require] some measure of evaluation and synthesis from student but must remain within the province of predictability. The initial behaviour was in response to teacher initiation.	Face:	A "Whats [sic, What's] more [sic, ,] Sir" look, eyes sparkling.
		Posture:	Add movements to those given or expected, tries to show some arrangement which requires additional thinking, e.g., works on gymnastic routine, dribbles basketball, all game playing.
9-19	9		19
	Pupil initiated talk which is purely the result of their own initiative and which could not be predicted.	Face:	Interrupting sounds, gasps, sighs.
		Posture:	Puts hands up to ask questions, gets up and walks around without provocation, begins creative movement education, makes up own games, makes up own movements, shows initiative in supportive movement, intro-

APPENDIX O (continued)

Categories	Relevant Behaviours: Verbal		Relevant Behaviours: Nonverbal
			duces new movements into games not predictable in the rules of the games.
10-20	10		20
	Stands for confusion, chaos, disorder, noise, much noise.	Face:	silence, [sic, Silence] children sitting doing nothing noiselessly awaiting teacher just prior to teacher entry, etc.

APPENDIX P

CHEFFERS' GROUND RULES*

1. Whenever the structure of the class moved to part (coded P), a decision had to be made as to what part of the class interaction was to be coded. It was decided that the observers could code any part of the lesson they so desired using CAFIAS, but in the absence of such direction the observers would follow the teacher and code his interaction with either the individual students or groups with whom he was working. Nevertheless, if another student or some part of the environment was doing the teaching, then this could be coded by CAFIAS. On most occasions, for purposes of inter-observer reliability, it was necessary to establish the specific categorization route prior to the lesson.

2. Whenever the teacher was talking and demonstrating at the same time, necessitating similtaneous [sic, simultaneous] coding, the observer coded the verbal symbol and encircled it. This was encoded into the matrix in both verbal and nonverbal cells.

* Cheffers, "Validation of an Instrument...," pp. 39-40.

APPENDIX P (continued)

3. In order to clarify the use of 6, CAFIAS adopted the following recommendation. When directions were being given, only the executive part of the command was coded as a 6; the information giving section of the statement was coded then as a 5, e.g.:

"Group 6 will assemble the mats in the far corner, in star formation." -5

"Right boys! Go!" -6

This ground rule was consistent with Flanders' recommendation that a direction should be followed by an immediate physical movement that is observable, and in response, a teacher directed command.

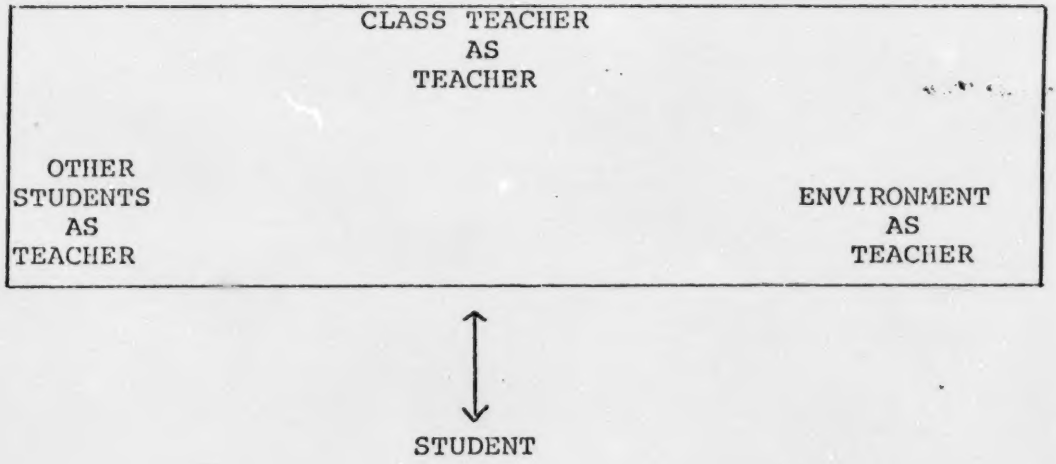
4. The differentiation between encouraging 7's and 17's.*

* Cheffers does not go on to clarify this in his ground rules.

APPENDIX Q

CHEFFERS' MODEL SHOWING CAFIAS

DIVERSIFICATION OF TEACHING AGENCY*



* Cheffers, "Validation of an Instrument...," p. 18.

APPENDIX R-I

CIVIKLY'S TEACHER NONVERBAL

COMMUNICATION CODING SYSTEM*

Body Motion

walks across the room

shuffles

moves around class

moves from desk to board

sways back & forth on heels & toes

sways from side to side

steps back

shrugs shoulders

nods at class

shakes head (horizontal)

moves head to one side

taps feet

shakes legs

waves arms

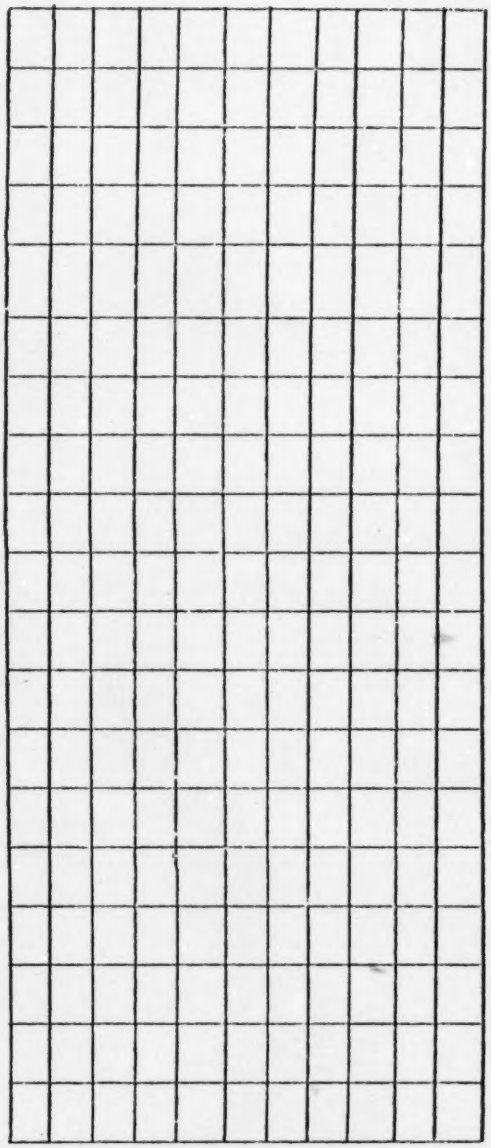
folds arms across chest

has arms behind back

puts both hands on hips

puts one hand on hip

others:



* Civikly, "A Description and Experimental...," pp. 115-118.

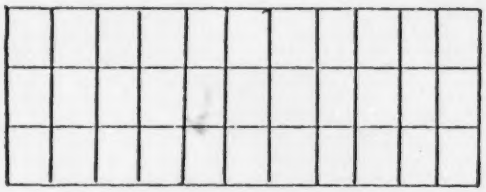
APPENDIX R-I (continued)

Posture-Position

sits at desk

sits on desk

sits on stool



APPENDIX R-I (continued)

(GRAPH EXCLUDED)

Posture-Position

sits on floor

stands at attention

stands at front-center of class

leans against board

leans against desk (lecturn)

leans forward over desk, toward class

others

Hand Gestures

points with finger, hand, stick, chalk, book, microphone

claps hands

snaps fingers

rubs desk

folds hands (clasp)

makes "OK" sign

makes numeric signs ("1", "2", etc.)

steepling

holds heads (in hands)

makes large gestures

makes "form" gestures (molding in air)

makes "direction" gestures

cuts air with choppy hand motions

APPENDIX R-I (continued)

(GRAPH EXCLUDED)

makes hand circles

beckons students

extends open palms to class

Facial Expression

smiles

frowns

wrinkles brows

raises brows

squints

stares

winks

widens eyes

looks down at notes

wrinkles nose

pouts

smacks lips

yawns

other:

Vocal Expression

speaks in monotone

varies volume

varies stress

APPENDIX R-I (continued)

(GRAPH EXCLUDED)

varies rate

pauses

uses silence

"uh", "um", "hmm", "ok", etc.

laughs

coughs

giggles

clicks tongue

sighs

moans

whines

clears throat

whispers

shouts

others:

Personal Acts

adjusts tie

adjusts collar

adjusts glasses

adjusts jacket, blouse, shirt

tucks in blouse, shirt

places hands in pocket

APPENDIX R-I (continued)

(GRAPH EXCLUDED)

plays with jewelry

pushes hair back

scratches head, face, mustache, nose, ear, neck, leg, chin

chews gum

others:

APPENDIX R-II

CIVIKLY'S DEFINITION OF CATEGORIES

FOR TNVCC IN APPENDIX R-I *

1. Body Motion

   Includes general body movements, such as movements of the whole body, limbs, head, feet, and legs.

   E.g. walking in front of the classroom

2. Posture and Position

   Posture: This is to be used when observing stabilized body movements, those which have become stationary for a period of time, whether it be sitting, standing, or leaning against a support.

   Position: the degree and general angle to which the teacher's shoulders and legs are turned in the direction of, rather than away from, the "students".

3. Hand Gesture

   This category includes motions with the hands and fingers, and to a lesser degree, the arm. Some examples of hand gestures are: pointing, tapping the desk, opening the palms, cutting the air with choppy hand motions. It does NOT include the "personal acts" described below.

4. Facial Expression

   Included in this category are movements of the eyes, nose, and mouth, or a combination of those. Some examples are: squinting, wrinkling the nose, and smiling.

5. Vocal Expression

   This deals with HOW the teacher says something, not the actual content. Included here are intonation patterns, general changes in volume, rate, stress, pitch, and such vocal behaviors as shouting, laughing, coughing, sighing, and whispering.

* Civikly, "A Description and Experimental...," pp. 110-111.

APPENDIX R-II (continued)

6. Personal Acts

This category incorporates acts not directly related to teaching behavior, motions of a part of the body in contact with another part, either directly or mediated by an instrument, e.g., tapping an arm or leg with a finger or pen. These acts generally involve use of the hands, and may have become so-called personal habits or "mannerisms" of the instructor. Some personal acts include "preening" behaviors as adjusting clothes, scratching, and pushing one's hair back.

APPENDIX S

CIVIKLY'S SEMANTIC DIFFERENTIAL*

What are the general characteristics of this teacher's nonverbal classroom behavior?

A. Activity level: Consider the number of nonverbal clues this teacher generates. Rate this teacher on the following scale:

very active_____not active

B. Speed of Motion: Does the teacher tend to move rapidly or slowly? Indicate your perception of the speed of his motions:

slow_____rapid

C. Size of Motion: Does the teacher tend to make such large motions as broad gestures of the hand, or does he make small motions?

small_____large

D. Personal Motions: Plot the teacher's use of personal motions (acts):

many personal acts_____few personal acts

E. Verbal-Nonverbal Orientation: Consider the nonverbal activity and the verbal activity that this teacher exhibits. Plot his orientation:

verbal_____nonverbal

F. Clarity of Communication: Does the teacher's nonverbal behaviors effectively communicate what you think he is intending to communicate?

motion communicates what is intended_____motion does not communicate what is intended

* Civikly, "A Description and Experimental...," p. 120.

APPENDIX T

PERKINS' STUDENT AND TEACHER CATEGORIES*

Student Categories		Teacher Categories	
LISWAT	Interest in ongoing work: listening and watching-passive.	1.	Does not accept student's idea, corrects it: rejection or correction of student's response.
REWR	Reading or Writing: working in assigned area-active.	2.	Praises or encourages student or behavior: enthusiastic acceptance of student's response.
HIAC	High activity or involvement: reciting or using large muscles-positive feeling.	2A.	Listens to, helps, supports, nurtures student: accepting, helping response; also listening to recitation.
WOA	Intent on work in another curricular area: school activity not assigned to be done right then.	3.	Accepts or uses student's answer or idea.
WNA	Intent on work of nonacademic type: preparing for work assignment, cleaning out desk, etc.	4.	Asks questions about content (what? where? when?): wants to find out whether student knows and understands material.
SWP	Social, work-oriented-PEER: discussing some aspect of schoolwork with classmate.	4A.	Asks questions that stimulate thinking (why? how?): encourages student to seek explanations, to reason, to solve problems.
SWT	Social, work-oriented-TEACHER: discussing some phase or work with teacher.	5.	Lectures, gives facts or opinions about content: gives information in discussion, recitation, or committee meeting.
SF	Social, friendly: talking to peer on subject unrelated to schoolwork.	6.	Gives directions, commands, or orders with which student is expected to comply.

* Perkins, "A Procedure for Assessing...," p. 251.

APPENDIX T (continued)

Student Categories		Teacher Categories	
WDL	Withdrawal: detached, out of contact with people, ideas, classroom situation; daydreaming	7.	Criticizes or justifies authority: disapproves of conduct or work of student or group of students. *
		10.	Is not participating in class activities: is giving test or is out of room-class silent or in confusion.
DISC	Large-group discussion: entire class discusses an issue or evaluates an oral report.	LDR	Leader-director-teacher initiative-active: conducts recitation or discussion, lectures, works with small groups.
REC	Class recitation: teacher questions, student answers-entire class or portion of it participating.	RES	Resource person-student-centered, lesser role than leader: helps group or committee, brings material, suggests.
IND	Individual work or project: student is working alone on task that is not a common assignment.	SUPV	Supervisor-teacher initiative, passive, role during seatwork: circulates to observe and help.
SEAT	Seat work, reading or writing, common assignment.	SOC	Socialization agent: points to and reinforces social expectancies and rules; criticizes behavior.
GRP	Small-group or committee work: student is part of group or committee working on assignment.	EVL	Evaluator: listens and gives mark for oral report, individual or group; asks, "How many did you get right?"
REP	Oral reports-individual or group: student is orally reporting on book, current events, or research.		

* Categories 8 and 9 omitted in original

APPENDIX U

KOCH'S CATEGORIES OF BEHAVIOR*

Eye-contact
Met students' gazes
Avoided eye contact

Walking and Gait
Vagrant, peripatetic, restless moving about

Voice
Shows anger
Choking
Uses filler-talk
Grunts
Interrupts students
Too loud
Overtalkative
Repetition of words
Too soft to hear well
Sniffs
Shrillness
Tremulous
Words spaced out
Too high pitch
Nasal
Scratchy
Dialect (Southern)
Good clear voice
Mispronunciations
Oil=oll
Senator=sinater
tar=tor

Facial
Bites lip
Blinks
Frowns
Furtive glances
Glares
Excessive mouth movements
Raises eyebrows
Stares
Tears flow easily
Grins
Smiles

Facial
Quickly flashed smile
Thin-lipped painful smile
Too serious, never smiles

Student Behavior
Black students clustered in peripheral groups
Black students seem free of tension
Students seek attention by talking out

Teacher Dress
Appropriate
Ostentatious
Over-dressed
Neat
Dirty
Colors match

Proximity
Stood close to students
Approached middle distance
Stayed as far as possible
Leaned over students' work

Territoriality Shown **

Gestures
Many
Few
None
Gives directions with
Agitated, rapid, useless hand flutters

Molar Impression
Aloof, bored, disinterest
All business, we've got a lesson to cover
Angry attitude
Anxious
Calm

*Koch, "Nonverbal Observables." p. 291.
** No subheadings appear for this category in the original.

APPENDIX U (continued)

Molar Impression
Shows empathy or sympathy
Forceful personality
Frustrated air
Positive learning situation, student eager, interested
Negative learning situation: students turned off
Neutral learning situation: if you want to learn, ok; if not, it's your business
Teacher lectures, little student discussion
Negative use of time
Noisy room, teacher ignoring

Hands
Clasped
In pockets
Fists
Juxtapositional
Preening
Restless
Stroking face
Touching face
Tapping, drumming
Toying with objects
Tremor
Scratching body
Immobile hands
Touch jewelry

Teacher Sitting
Sits while teaching
Immobile
Relaxed
Rigid, tense

Use of Nonverbal
Used a lot
Used moderate amounts
Used little or none
Gave directions verbally
Gave directions nonverbally
Sarcastic verbally
Sarcastic nonverbally
Gave verbal reinforcement
Gave nonverbal reinforcement
Gave little reinforcement

Quasi-Courtship Used *

Quasi-Courtship Disclaimers *

* No subheadings appear in the original.

APPENDIX V

GRANT AND HENNINGS' CATEGORIES OF INSTRUCTIONAL MOTIONS*

1.0 Conducting

A teacher physically conducts a class by involving one, some, or all of his students in the lesson. In conducting he uses motions that enable him to control student participation and obtain attending behavior.

1.1 Controlling Participation. Physical motions control participation by focusing attention on materials, objects, persons, or even symbolic representations. These motions also indicate who the participants should be, when they should participate, and for how long; in a sense they halt or exclude interaction, elicit a physical response, rate a response, or answer the verbal or non-verbal inquiries of students. In addition, the motions regulate the flow, speed, and intensity of the verbal interaction. Examples, taken from actual classroom performances, are:

moving the head to survey the group
pointing to a child to begin
turning to focus on a child
pointing the microphone from a tape recorder at a child to indicate begin
using index finger to connect one child's remarks to another child's
leaning forward toward a child
cocking head in a questioning way
cupping hand behind ear
shrugging shoulders
raising hand to communicate "Would you raise your hand when you want to speak?"

1.2 Obtaining Attending Behavior. Obtaining attending behavior is another aspect of the conducting act. Motions that obtain attending behavior usually occur prior to the launching of a lesson or during a transitional period within the lesson. They tend to vary from teacher to teacher; but in essence, they are all used for the same purpose-to acquire a spreading stillness or period of

* Grant and Hennings, The Teacher Moves, pp. 11-15.

APPENDIX V (continued)

tranquility when every eye is focused on the teacher. Such motions are also used to gain the attention of a child who is misbehaving or a group of children who are not conforming to the established behavior pattern. Some examples are:

clapping hands to gain the attention of the group
tapping bell
playing a note on the piano
placing finger to lips
holding up hand toward child to indicate: stop misbehaving
clicking the light switch
touching child on shoulder
walking toward front of the room and standing still
holding up hand to class group: quiet down
pushing down start button for recording purposes: please be quiet because we are recording

That conducting motions can occur in repetitive patterns is evident. A cycle may get under way with the tapping of a bell to obtain attending behavior. The tap may be followed by surveying, pointing, nodding motions. Such a sequence can be repeated over and over again during a lesson.

2.0 Acting

A teacher uses bodily motion to amplify and clarify meanings he is trying to communicate. These motions emphasize or illustrate; in combination they also enable a teacher to make meanings more clear by the complete acting out of words, concepts, or objects, as in role playing and pantomime.

2.1 Emphasizing. To emphasize a word or group of words a teacher may move his hand as he says the important words. He may swing his head to give emphasis to a word as when he says "No!" to a child. Sometimes he may move his entire torso, as when he moves his body to emphasize the rhythmic flow of language. And sometimes he may gesture with a microphone, chalk, or pointer to emphasize one aspect of the lesson. Some examples are:

APPENDIX V (continued)

moving finger up and down as he speaks
giving head a sharp jerk
moving hand as he says word

2.2 Illustrating. To illustrate a teacher may use his hands to describe non-verbally some word, concept, or object under consideration. For instance, a teacher may move his hand in a circular pattern to describe what is meant by a spiral; he may point to indicate a direction in which the class should walk. Examples of illustrating are:

showing the movement of the wind
showing the size or shape of an object
indicating what time it is
counting the number on his fingers
illustrating concepts such as "to go away from" and "to go up"
referring to someone who has previously spoken

2.3 Role Playing or Pantomiming. In a third type of acting, role playing or pantomiming, the teacher actually pretends to be an object, an animal, or a character. In this respect his entire body gets into the act. Examples of possible role playing motions are:

taking on the role of an announcer
imitating a tiger
pretending to be a wilting daisy or a flat tire
hopping like the bunny in the story
playing dead

Although acting motions aid in the communicating of meanings in the classroom, they also serve as interest-provoking devices; and because they do engender interest, they may enable a teacher to maintain student attention after attention has been gained through conducting motions. As a result of this dual function, acting motions serve a valuable purpose in the classroom.

3.0 Wielding

The teacher interacts with objects, materials, or parts of the room by using wielding motions.

APPENDIX V (continued)

3.1 Direct Wielding. A teacher may wield directly by touching, handling, or maneuvering "things" in the class. He wields directly when he is:

picking up book, pen, pencil, poster, etc.
flipping pages in book
placing cover on the back of felt pen
adjusting shades in the classroom
placing globe on floor
holding down rewind button on tape recorder
placing book in lap
using eraser to erase board
writing words for his own use on paper while sitting at desk
writing sentences on board to be used later in the lesson as an exercise or assignment

3.2 Indirect Wielding. A teacher may wield indirectly by surveying, scanning, looking at, or reading things in the classroom environment; in this instance, the teacher does not come into direct bodily contact with the materials, but rather makes motions as he brings his eyes to a point where they can focus on some written or concrete material. A teacher wields indirectly when he is:

surveying or scanning books on shelf
standing in front of bookshelf looking for a particular book
looking down at book to read sentence
dropping head toward book to check answer
leaning over books on shelf to select book
glancing at clock to check time
looking down at watch to check time

3.3 Instrumental Wielding. The teacher also wields when he makes motions that enable him to interact with the physical environment of the classroom. These motions involve movement toward objects, materials, or part of the room. Because these motions are instrumental to the actual maneuvering of objects or materials, they can be called instrumental wieldings; a teacher wields instrumentally when he is:

walking back to desk
walking over to bookshelf
turning to write an assignment on easel or board

APPENDIX V (continued)

for use later on in the lesson
walking over to tape recorder to turn off the machine

All wielding motions are not necessarily carried through to a logical, intended end. For instance, a teacher may begin to walk toward the tape recorder in a motion that would be classified as "instrumental to wielding" but never get to complete the action and turn on the recorder. Some other classroom event or a simple change of mind may interfere with the completion of the task. All wieldings, therefore, are not productive in terms of carrying the teaching step by step to an end point; some wieldings might even be considered abortive.

Just because a teacher's body comes into contact with an object does not mean that his motion involves a wielding act. A teacher often comes into physical contact with objects in the environment when he is conducting, especially when he is controlling participation. When he touches the chalkboard just beneath a word written there, he may be focusing attention on that particular word; and thus it is a conducting act he is performing rather than a wielding act.

APPENDIX W

FRENCH AND PARKER'S

STUDENT BEHAVIOR INDEX *

STUDENT BEHAVIOR	SELF-DIRECTIVE	1. DIRECTS TALK TO THE TEACHER. Raises hand to speak and/or speaks to teacher without prompting. The student may ask questions, request permission, relate personal experience or share his own ideas.
		2. MAKES SELF-INITIATED NONVERBAL BEHAVIOR. Walks around the room, sharpens pencil, obtains materials or performs other self-directed activities. Writes, draws, reads or moves independently.
		3. DIRECTS TALK TO PEERS. Begins conversation with classmates without teacher direction. Student may ask peer for help or materials, share information or relate thoughts and experiences.
		4. RESPONDS TO PEERS. Makes a verbal or nonverbal response to classmate-initiated conversation. Student may listen and/or comply with the talk.
	COMPLIANT	5. WORKS READING AND WRITTEN ASSIGNMENTS. Completes assignments of the teacher by reading, writing or other nonverbal behavior required to satisfy requirements.
		6. MAKES VERBAL REPLY TO TEACHER. Answers a question, reads aloud or exhibits other verbal behavior in response to teacher direction or question. (If student makes an unsolicited comment after teacher talk use Category 1.)
		7. LISTENS-FOLLOWS DIRECTIONS IN NONVERBAL BEHAVIOR. Gives physical attention, moves or takes a physical position in response to teacher direction. Response may be getting out books, moving a chair or getting in line.

* Parker and French, "A Description of Student...," p. 280.

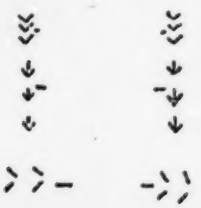
APPENDIX W (continued)

TEACHER BEHAVIOR	DIRECT	8.	LECTURES, GIVES DIRECTIONS, CRITICIZES, JUSTIFIES AUTHORITY OR RESTRICTS BEHAVIOR NONVERBALLY. Talk by the teacher in the act of instructing or intending to change or control student behavior. Facial expressions, gestures and other nonverbal behaviors that restrict student behaviors are also included.
	INDIRECT	9.	ACCEPTS FEELINGS AND IDEAS, PRAISES, ASKS QUESTIONS OR ENCOURAGES BEHAVIORS NONVERBALLY. Talk and nonverbal cues by the teacher which accepts, uses or encourages a greater degree/variety of student behaviors.
		10.	CONFUSION AND MISCELLANEOUS. Periods of activity in which verbal communication cannot be understood or nonverbal behavior does not fit other categories.

* Parker and French, "A Description of Student...," p. 280.

APPENDIX X

SCHERER'S VERBAL/NONVERBAL TRANSCRIPTION MODEL*



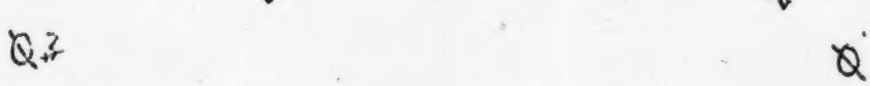
(Sq-) (-Sq)

MM$_b$M.

^{2}fóh+yîhz^{2}‖ 1 2 $2_{\#}$

Four years. M-hm.

Sq- -Sq



^{2}ày+^{s}θíŋk^{3}|^{2}hìyz+ə̀+krânik+àæ lkɔ^{2}hɔ́lɨk^{2}‖

I think he's a chronic alcoholic.

(0-) (-0)

^{2}in+now^{2}vémbɔ^{2}‖ æ nd:

...in November And,

* Scherer, Nonverbale Kommunikation, p. 101.

APPENDIX Y

KNAPP'S GLOBAL ANALYSIS CATEGORIES*

GLOBAL ANALYSIS: INITIAL PHASE

(Recording First Impressions)

The Environment. Are there any environmental stimuli likely to affect this interaction? Is the temperature going to be a factor? How about the number of other people around the two interactants? How will these other people influence what the two interactants may do-even if they do not say anything? Will the colors and general decor influence this interaction? How much space is available between and around the communicators? What architectural factors may influence what happens? Chairs (soft-hard)? Tables? Walls? Desks? Out of all the available places in the immediate environment, why might the interactants have chosen the exact place they did? Does it seem like a familiar environment for both parties? Do they appear to feel "at home"? What behavior can be expected in this environment?

The Participants. Will the sex of the participants likely affect the interaction? How? Will age have any influence on what happens? How about the status or authority relationships involved? How do the participants look? Is attractiveness going to be a factor? Will hair style or body size affect the interaction? How? What is the role of dress in this interaction? Does the participants' dress meet expectations for the environment, their roles and mutual expectations? Can any odors be detected? Are the participants aware of them? Are there any differences in education, occupation, or socioeconomic status which may affect the communication behavior? How? Does race or cultural background play any major part in interpersonal behavior in this situation? Will artifacts such as lipstick, glasses, etc., affect participant reactions to any significant degree? What is the relationship of these two participants to one another? Do they have any previous experience with each other which will likely be influential here? Do they seem to like each other? Why? Do the participants enter this transaction with compatible goals or purposes? What information do the participants bring to this

* Knapp's Nonverbal Communication..., pp. 199-202.

APPENDIX Y (continued)

subject on this occasion?

As an observer, you must recognize that some of these initial observations and hypotheses may change as the interaction progresses-a woman may remove her glasses; a man may take off his ring; or attitudes may not be as similar as predicted. Observers should be prepared to note such changes.

GLOBAL ANALYSIS: INTERACTION PHASE

(Recording Ongoing Verbal-Nonverbal Responses)

Touching Behavior. Is there any physical contact at all? If so, does it seem to be deliberate or accidental? Does this action seem to be motivated by some specific purpose-e.g., reinforcing a point? If there is no contact, why? Did the situation call for contact or no contact? Was contact made only at special times during the interaction? How frequent was the contact? How long did it last? Who initiated the contact? What was the apparent effect on the person being touched?

Facial Expressions. Do either or both communicators have a relatively consistent facial expression in this situation? Are they generally communicating one attitude or emotion with their facial expressions? Were there gross changes at certain points in the conversation? What might have accounted for such gross facial changes-verbal or nonverbal behavior? Were there times when one person's facial expression elicited a similar expression from the other person? Did you see any "micromomentary" or fleeting facial expressions which suggested attitudes contrary to those being expressed verbally? At what points did you notice expressions which would generally be described as frowning or sad, smiling and happy, angry, anxious, impatient, bored, puzzled, serious, or surprised? Did the facial expressions differ in intensity at various points in the transaction? Did the facial expressions seem "genuine"? If so, why? If not, why not?

Eye Behavior. Is there generally a lot of visual contact or not very much? Why? Does one person look away more than the other? Why? Do one or both participants seem

APPENDIX Y (continued)

to stare or extend eye contact beyond "normal" limits? Is there a pattern to the places a person looks when he does not look at the other person? If so, can you explain why this pattern may occur? Is there any excessive blinking by one or both parties? At what points is eye contact most evident? Not evident? What effect does eye contact or lack of it seem to have on the other participant?

Posture-Position. Do both participants assume the same posture? Why? Are both standing? Sitting? If one is standing and one is sitting, how does this relate to their respective roles in this situation? Does the assumed posture seem to be relaxed or tense? Does this change during the course of the interaction? If so, why? Are one or both participants leaning back? Leaning forward? What does this suggest? Are the participants facing head-on? At an acute angle? At an obtuse angle? Side by side? Have they arranged their bodies to block others from entering their conversation? What is the relative distance used for communicating-close, medium, far? Do leg and arm positions communicate impenetrability or coldness? Do leg positions suggest inclusion? Are one person's changes in posture matched by the other person? How long do the participants maintain a given posture? Why do they change?

Vocal Behavior. Are both participants using the appropriate level of loudness for the situation? Does one person have an unusually soft or loud voice? What is the effect on the other person? Is talking rate a factor in this situation? How? Are there times when you perceive an incongruity between vocal cues and verbal statements? What is the effect on the other participant? Do one or both participants have fairly deep voices? Fairly high voices? Are there periods of silence beyond normal pauses? Why? Do vocal cues such as laughing or groaning play a significant part? What about a quivering or quaking voice during periods of nervousness? Does vocal quality such as hoarseness seem to affect the total impression of one or both of the participants? Are there excessive nonfluencies? With what effect?

Physical Movement. What were the significant movements in the event? Did head nodding play a major part? How? How about hand gestures? Did one participant seem to be moving in on the other while the other moved back? Was

APPENDIX Y (continued)

there generally a lot of movement or not too much? Why? Did hand or finger movements play a part? How? Did hand or foot cues suggest clues to deception? How about foot tapping? Were there major changes in posture? How frequent were they? Did you observe any cues for terminating the conversation-e.g., a participant looking at his watch, making motions to get up or move out the door, taking a deep breath, frequently looking around and out the window, etc.?

Verbal Behavior. Here we will ask about some familiar, typical types of verbal responses. Consider: (1) What was the general style of one or both participants? Can it be generally characterized in any one or two categories? (2) What specific kinds of remarks elicited what specific kinds of nonverbal behaviors? In other words, what seemed to be the effect of certain verbal responses on the initiator's nonverbal behavior and on the receiver's verbal and nonverbal responses? Response types: Disagreement about content? Agreement about content? Advice about feelings? Advice about action? Ambiguous responses? Interrupting responses? Personal attack? Defensive response? Evaluative response? Supportive response? Questions? Opinions? Tension release through jokes, etc.? Tangential response? Irrelevant response? Expression of own feelings: Positive? Expression of own feelings: Negative? Interpretive response? Request for clarification of feelings? Request for clarification of content?